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DEFENDANT'S EXHIBIT NO. 192.

Licence No. 5

Dated the ..... day of

..... 19.....

Australian Radio Technical
Services and Patents
Company Pty. Limited

to

.....

Licence

To use and exercise certain Australian Letters Patent for certain specific purposes as within in connection with Wireless Broadcast Receiving Apparatus and/or Radiogramophones.

Licence No. 5.

An Agreemen made this ..... day of ..... 19..... Between Australian Radio Technical Services & Patents Company Pty. Limited having its registered office at 47 York Street Sydney in the State of New South Wales (hereinafter called "the Grantor") of the first part, And ..... of ..... (hereinafter called "the Licensee") of the second part.

Whereas the Grantor has the right to grant licenses to the extent purpose and for the period of this agreement for all Australian Letters Patent owned or controlled by Amalgamated Wireless (Australasia) Limited, Standard Telephones & Cables Pty. Limited, N. V. Philips Gloeilampenfabrieken and Neutrodyne Proprietary Limited.

And Whereas the Licensee claims to be a bona fide manufacturer of wireless broadcast receiving apparatus and/or radio gramophones and as such manufacturer has applied to the Grantor to grant and the Grantor has agreed to grant to the Licensee a licence under the Letters Patent and upon the terms and conditions hereinafter mentioned and in consideration of the royalties herein reserved and assessed upon the basis agreed between the parties as being convenient. Now It Is Hereby Agreed As Follows:

1. (a) The expression "Broadcast Receiver" and "Broadcast Receiving Apparatus" when herein used shall each mean broadcast receiving apparatus which is designed to incorporate valves (whether or not equipped with the valves themselves) and which is designed to receive and translate amplitude modulated electrical oscillations broadcast to the public for sound reception. Such expression does not include valves or cathode ray tubes whether or not incorporated in the apparatus nor separate components but shall include sets of component parts and/or any electronic device designed to be used in association with such broadcast receiving apparatus.

(b) The expression "Radiogramophone" when herein used shall mean an instrument which is designed to incorporate valves (whether or not equipped with the valves themselves) and which may be used for the reproduction of sound through an electrically operated loudspeaker alternatively from (i) apparatus designed for the reception and translation into sound of amplitude modulated electrical oscillations broadcast to the public and (ii) apparatus (such as turntable and pick-up) designed for the translation into sound of vibrations recorded on a disc sound record. Such expression does not include valves or cathode ray tubes whether or not incorporated in the instrument nor separate components but does include playing disks designed for use in combination with broadcast receivers and shall include sets of component parts.

(c) The expression "Set of Component Parts" for broadcast receiving apparatus or radiogramophones when herein used shall mean a number of component parts which are capable of being assembled so as substantially to constitute a broadcast receiver and/or radiogramophone.

(d) The word "Valve" (or "Valves") when herein used shall be deemed where the context so admits to include inter alia a multiple valve a valve for rectifying electric current and other apparatus used in direct substitution for a valve.

(e) The expression "Place of Public Entertainment" when herein used shall mean a place of public entertainment now existing or which during the subsistence of this Licence may eixst and at which entertainment tax is or shall be payable or would be payable but for any statutory exemption granted subsequent to the first day of January, 1951. If during the subsistence of this Licence entertainment tax should be abolished then thereafter the expression shall mean a place of public entertainment now existing or which during the subsistence of this Licence may exist of the character of those places of public entertainment at which at the present time entertainment tax is in fact payable or would be payable but for any statutory exemption granted subsequent to the first day of January, 1951.

(f) The expression "Private or Domestic Use" as used herein shall be deemed to include also the use in Public Houses Hotels Boarding Houses Restaurants Cafes Tea Houses Factories Warehouses Shops and/or small Dance Halls (only) Provided that such are not attached to or do not form part of a theatre or cinema.

(g) The expression "Selling" when herein used shall be deemed to include selling on the so-called hire-purchase system.

(h) The word "Plate" when herein used shall be deemed to include transfer.

2. (a) The Grantor grants and agrees to grant to the Licensee subject to the terms and conditions herein appearing a personal non-exclusive non-assignable licence to use and exercise all or any of the inventions the subject of the Letters Patent applicable to broadcast receiving apparatus and radiogramophones respectively in respect of which and insofar as the Grantor now has or may hereafter during the subsistence of this Licence have power to grant licences or sub-licences for the purposes and on the terms hereof (which Letters Patent are herein collectively called "the said Letters Patent") for the purposes of manufacturing using selling or letting on hire within the Commonwealth of Australia and such territories as may from time to time be administered under mandate by the said Commonwealth (a) broadcast receiving apparatus and (b) radiogramophones but in both cases only for private or domestic use or for the purpose of lectures or demonstrations in any institution of a charitable educational philanthropic or religious character (such lectures or demonstrations not being open the the public generally and not being held for payment) and not otherwise. Such Licence shall be deemed to have commenced on the first day of January, 1951, and shall continue until the 30th day of June, 1953, unless previously revoked as hereinafter provided.

(b) The Licencee undertakes that all companies or firms now or hereafter during the subsistence of this Licence directly or indirectly owned of controlled by the Licensee and all Companies or Firms formed by the Licensee during the subsistence of this Licence and directly or indirectly owning or controlling the Licensee shall if engaged in any field or business to which this Licence is applicable forthwith accept licences from the Grantor upon the same terms as this Licence and the Grantor agrees to grant such licences accordingly. If the Licensee shall become directly

or indirectly owned or controlled by a company or firm which does not hold or forthwith obtain a licence from the Grantor upon the same terms as this Licence the Grantor shall be at liberty to revoke this Licence.

(c) The Grantor covenants and agrees that if during the subsistence of this Licence it grants to any Licensee either in the Comonwealth ofAustralia or such territories as may from time to time be administered under mandate by the said Comonwealth any other licence at lesser rates or royalty or on any terms or conditions more beneficial or favourable in any manner whatsoever than is or are provided and made available to or enjoyed by the Licensee hereunder then forthwith the Licensee shall be entitled to and shall be offered by the Grantor such other licence in lieu of this licence so that he shall enjoy the same rates of royalty the same terms and conditions of manufacture and generally the same benefits as such Licensee who shall have been granted better terms as aforesaid by the Grantor and the Grantor hereby undertakes forthwith to advise the Licensee upon such better terms being made available to any other Licensee as aforesaid.

(d) The Grantor covenants and agrees to provide to the Licensee an accurate list of the said Letters Patent current at the first day of January 1951 and to advise the Licensee at least quarterly thereafter of changes additions and revisions to this list occasioned by expiration of any of the said Letters Patent or by the granting of new Letters Patent or by any other cause.

3. (a) Nothing contained herein shall be deemed to license the Licensee to manufacture import sell or let on hire valves or any kind but the Licence shall be deemed to license the Licensee to manufacture sell or let on hire any other individual component part of broadcast receiving apparatus or radiogramophone without payment of any royalty.

(b) The Licence hereby granted shall not authorise the use or exercise of broadcast receiving apparatus or any radiogrammophone for any purpose whatsoever other than the purposes herein set forth and in particular shall not authorise the use or exercise of any of the said apparatus by operating the same for revenue-earning purposes. Nor shall this Licence authorise the use or exercise of any of the said apparatus for purposes of receiving sound broadcasting or operating any radiogramophone in relation in any manner to the service of any place of public entertainment or of any place in which any business requiring any licence from public authority is conducted (except insofar as such use is authorised under the definition of "private and domestic use") or for use with a microphone.

(c) The Grantor agrees to take all necessary action either at law or in equity to prevent any person or persons firm or firms corporation or corporations and company or companies whomsoever and whatsoever manufacturing or selling or letting on hire broadcast receivers and/or radiogramophones which embody or utilise or are designed to embody or utilise any invention the subject of the said Letters Patent during the terms of this License without payment of the royalties specified hereunder or under any licence granted in accordance with Clause 2(c) hereof.

4. The Licensee agrees with the Grantor as follows:

(a) From time to time on the request of the Grantor to furnish to the Grantor diagrams and/or samples of all broadcast receiving apparatus and/or radiogramophones for the time being manufactured sold or let on hire by the Licensee.

(b) To attach or cause to be attached in a prominent position to all broadcast receiving apparatus and radiogramophones sold or hired or offered or exposed for sale or hire by the Licensee (or in the case of a set of component parts for such apparatus to supply for attachment to the

assembled apparatus by the constructor thereof) a plate marked by the Grantor with a Serial Number determined by the Grantor and indicating the number of valves (as hereinbefore defined) and bearing the following words: With respect to Broadcast Receiving Apparatus and/or Radiogramophones:

> "No ..... This instrument was manufactured under a Licence granted by Australian Radio Technical Services and Patents Company Pty. Limited in respect of Letters Patent controlled by it for the reception in the Commonwealth of Australia and such territories as may from time to time be administered under mandate by the said Commonwealth of Sound broadcast by wireless but only for private or domestic use and not for operation for any public or commercial or revenue-earning purpose. N. B.—A Post Office License is necessary."

Plates complying with the above may be obtained from the Grantor and no such plate shall be removed from any broadcast receiver or radiogramophone to any other apparatus without the previous consent in writing of the Grantor and no broadcast receiver or radiogramophone shall be or be deemed to be licensed hereunder unless such a plate be attached thereto and the absence of such a plate so marked from any broadcast receiver or radiogramophone shall be conclusive evidence that the same is not licensed hereunder. In addition if required by law the Licensee shall further mark in accordance with the requirements of the Patent Act of the Commonwealth of Australia or any amendments thereof made during the subsistence of this Licence all broadcast receivers and/or radiogramophones covered by this Licence which are manufactured sold let on hire or put into use by the Licensee.

(c) So far as is reasonably practicable to make the conditions of this Licence a condition of every sale or hire binding upon and observable by every purchaser or hirer

of any broadcast receiving apparatus and/or any radiogramophones sold or hired or offered or exposed for sale or hire by the Licensee.

(d) To pay to the Grantor by way of royalty:—

(i) In respect of all complete broadcast receivers and complete radiogramophones sold let on hire or put into use by the Licensee during the subsistence of this Licence whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent royalties upon the following scale based on the Licensee's net turnover as hereinafter defined—

3¼% of the Licensee's net turnover if such turnover is less than £15,000 per annum.

2¾% of the Licensee's net turnover if such turnover is or exceeds £15,000 and is less than £40,000 per annum.

2¼% of the Licensee's net turnover if such turnover is or exceeds £40,000 and is less than £70,000 per annum.

1¾% of the Licensee's net turnover if such turnover is or exceeds £70,000 and is less than £100,000 per annum, or,

¼% of the Licensee's net turnover if such turnover is or exceeds £100,000 per annum.

For the purpose of this sub-Clause the expression "net turnover" shall be ascertained by multiplying the number of each type of complete broadcast receivers including valves and/or complete radiogramophones including valves sold let on hire or put into use by the Licensee by [not legible] price of batteries of any kind at which each such type is sold in each month at genuine arms-length trading to the Licensee's largest dis-

tributor or customer in which the Licensee has no interest by share-holding or otherwise.

"Largest distributors or customers" shall mean that distributor or customer or alternatively those distributors or customers enjoying the longest discount or best price and who alone absorbs or together absorb not less than twenty per cent of the net turnover of the Licensee.

(ii) In respect of all broadcast receivers not complete with valves cabinet and loudspeaker or any of them and in respect of all radiogramophones not complete with valves cabinet loudspeaker pickup and motor or any of them sold or let on hire or offered for sale or hire by the Licensee during the subsistence of this Licence whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent the same percentages of the Licensee's net turnover as in the preceding sub-Clause hereinbefore set forth provided that the price of each incomplete receiver or radiogramophone shall be determined by adding to the sale price thereof an amount being the total of the sale price of valves loudspeaker cabinet and other components (excluding batteries) necessary to constitute a complete broadcast receiver or radiogramophone such price to be certified by a Public Accountant to be appointed by the Grantor and when so determined shall be included as part of the Licensee's net turnover for the particular year in which the same shall be sold let on hire or offered for sale.

Provided Always that in respect of broadcast receiving apparatus or radiogramophones manufactured or sold by the Licensee which employ any Letters Patent under which the Grantor may become liable to pay a royalty to a third party

or to share a royalty with a third party the Grantor shall offer to the Licensee and the Licensee may accept the right to the inclusion in this Licence of that Letters Patent on payment to the Grantor of an additional royalty of such amount as may be required to enable the Grantor out of the total royalties paid by the Licensee both to retain the royalties payable under this sub-Clause and to satisfy the terms of the licence or agreement under which royalty is or shall be payable by the Grantor. The Grantor shall if so required in writing by the Licensee furnish the Licensee with proof of the third party's claim to royalty. The Grantor shall upon request of the Licensee and the Licensee shall upon request of the Grantor permit the Grantor to examine free of charge diagrams and/or samples of broadcast receiving apparatus and radiogramophones manufactured or proposed to be manufactured by the Licensee and advise whether such apparatus embodies or utilises any invention the subject of any of the said Letters Patent under which the Grantor may be liable for royalty to a third party as herein mentioned. The Grantor shall inform the Licensee of the amount of any such additional royalty and any such additional royalty shall be shown separately in the returns hereinafter mentioned.

(e) Keep proper and accurate and separate accounts of everything necessary to ensure an accurate return to be made each calendar month in conformity with any of the provisions of this Licence showing the royalties payable under the last preceding sub-Clause (d) and to render such accounts within thirty (30) days of the last day of each calendar month in each year to such person as the Grantor may designate to the Licensee from time to time and to accompany each such account with a remittance based on the estimated annual turnover of the Licensee in respect of the royalties thereby shown to be due. In the event that the Licensee fails to keep the books of account above-men-

tioned in addition to any other rights and remedies the Grantor may have the Licensee agree to pay to the Grantor the amount of royalty which the Grantor may by notice in writing to the Licensee stipulate as the amount estimated to be due unless the Licensee proves that the royalty due should be some other amount.

(f) The Licensee shall furnish monthly returns verified by the Auditor of the Licensee or by a Statutory Declaration of the proper officer and in the event of any dispute shall permit the Grantor to appoint a Public Accountant to inspect the books and accounts of the Licensee relative to this Licence.

(g) To pay to the Grantor on the execution hereof for the first yearly period of this Licence and thereafter so long as the Licensee shall continue to manufacture sell or hire or offer or expose for sale or hire broadcast receivers and/or radiogramophones in advance each year during the period of this Licence the sum of one hundred and fifty pounds (£150) as minimum royalty for the yearly period, which sum shall in no event be returnable.

(h) Not at any time during the subsistence hereof to dispute or impeach or to assist others to dispute or impeach the validity of the said Letters Patent.

(i) Not to assign transfer mortgage grant sub-licences under or in any manner part with the possession or control of this Licence or any part of it without the previous written consent of the Grantor.

5. During the subsistence of this Licence the Grantor will keep the Licensee fully indemnified against costs and damages arising in connection with all actions proceedings claims and demands which may be made against the Licensee by any third party who seeks to establish or establishes to the satisfaction of a court of competent jurisdiction within the Commonwealth of Australia and such territories as may from time to time be administered under

mandate by the said Commonwealth his right to restrain the use and exercise by the Licensee under the Grant contained under this Licence of any of the said Letters Patent on the ground that such use and exercise is an infringement of any legal rights or legal interests of such third party in such Letters Patent. Provided Always that the Grantor is immediately informed of the institution of such proceedings and is given full and complete rights to take over at its own cost and through its own solicitors the defence of such proceedings if it so requests and in that event the Licensee shall assist the Grantor in every reasonable manner but the Grantor shall be at liberty to compromise submit to judgment in abandon discontinue or otherwise dispose of the same as to it may seem expedient.

6. The Grantor may revoke this Licence upon the happening of any of the following events:—

(a) If any royalty return or any royalty shown to be due is not rendered or is unpaid for thirty (30) days after the last day of any preceding month and remains unrendered or unpaid for seven days (7) after notice in that behalf from the Grantor; or

(b) If there be any breach on the part of the Licensee of any other of the agreements herein contained and the same be not remedied made good or desisted from within seven (7) days of notice in that behalf from the Grantor; or

(c) If the Licensee shall become bankrupt or compound with his creditors or (being a company) shall go into liquidation whether voluntary or compulsory;

any revocation of this Licence shall be without prejudice to all claims of the Grantor against the Licensee for outstanding royalties or prior breaches of this Licence or otherwise.

7. Notwithstanding anything herein contained this Agreement and Grant shall not apply to and the Grantor

hereby covenants that he will not charge or demand any royalty in respect of broadcast receiving apparatus and/or radiogramophones manufactured and exported by the Licensee beyond the Commonwealth of Australia and such territories as may from time to time be administered under mandate by the said Commonwealth.

In Witness Whereof the parties hereto have duly executed these presents the day and year first hereinbefore written.

The Common Seal of Australian Radio Technical Services & Patents Company Pty. Limited was hereunto affixed by

..... and

..... two

Director of the Company by order of the Board in the presence of

.....

Secretary.

Seal

Signed Sealed and Delivered by

.....

in the present of .....

.....

Seal

DEFENDANT'S EXHIBIT NO. 193.

Exhibit R.

Licence No. 6.

An Agreement made this ..... day of ..... 19..... Between Australian Radio Technical Services & Patents Company Pty. Limited having its registered office at 47 York Street Sydney in the State of New South Wales (hereinafter called "the Grantor") of the first part, And .....

.....

of .....

(hereinafter called "the Licensee") of the second part.

Whereas the Grantor has the right to grant licences to the extent purpose and for the period of this agreement for all Australian Letters Patent owned or controlled by Amalgamated Wireless (Australasia) Limited, Standard Telephones & Cables Pty. Limited, N. V. Philips Gloeilampenfabrieken, Neutrodyne Proprietary Limited and Electric and Musical Industries Ltd.

And Whereas the Licensee claims to be a bona fide manufacturer of broadcast sound receivers and/or television receivers and/or radiogramophones and as such manufacturer has applied to the Grantor to grant and the Grantor has agreed to grant to the Licensee a licence under the Letters Patent and upon the terms and conditions hereinafter mentioned and in consideration of the royalties herein reserved and assessed upon the basis agreed between the parties as being convenient. Now It Is Hereby Agreed as Follows:—

1. (a) The expression "Broadcast Sound Receiver" when herein used shall mean broadcast receiving apparatus which is designed to incorporate valves (whether or not equipped with the valves themselves) and which is designed

to receive and translate modulated electrical oscillations broadcast to the public for sound reception. Such expression does not include valves or cathode ray tubes whether or not incorporated in the apparatus nor separate components but shall include sets of component parts and/or any electronic device designed to be used in association with such broadcast sound receiving apparatus.

(b) The expression "Radiogramophone" when herein used shall mean an instrument which is designed to incorporate valves (whether or not equipped with the valves themselves) and which may be used for the reproduction of sound through an electrically operated loudspeaker alternatively from (i) apparatus designed for the reception and translation into sound of modulated electrical oscillations broadcast to the public and (ii) gramophone apparatus (such as turntable and pick-up) designed for the translation into sound of vibrations recorded on a disc sound record. Such expression does not include valves or cathode ray tubes whether or not incorporated in the instrument nor separate components but does include playing desks designed for use in combination with broadcast sound receivers and shall include sets of component parts.

(c) The expression "Television Receivers" when herein used shall mean apparatus (whether or not equipped with electron discharge devices or equivalent devices) which is intended to receive and translate electrical oscillations modulated by vision and associated sound signals which are broadcast to the public and which is intended for use for entertainment or education purposes or is of a type normally supplied to the public for domestic use Provided However that such expression shall include:—

(i) the following apparatus combined therewith or sold for combination therewith namely apparatus intended for the reception and translation of electrical oscillations modulated by sound signals which are

broadcast to the public but are not accompanied by vision signals (hereinafter referred to as "sound only receiving apparatus") apparatus intended for the reproduction of sound from records (hereinafter referred to as "gramophone apparatus") and signal boosting apparatus;

(ii) television receiving apparatus of the kind supplied by a broadcast television relay service as the subscribers' terminal units;

(iii) sets of component parts as hereinafter defined.

Provided Further that the expression "Television Receivers" shall Not include:—

any broadcast relay apparatus other than the terminal units referred to as included under item (ii) above, or Television Receivers adapted for producing a picture larger than 30 square feet.

(d) The expression "Set of Component Parts" for broadcast sound receivers and/or television receivers and/or radiogramophones when herein used shall mean a number of component parts which are capable of being assembled so as substantially to constitute a broadcast sound receiver and/or television receiver and/or radiogramophone.

(e) The word "Valve" (or "Valves") when herein used shall be deemed where the context so admits to include inter alia an electron discharge device a multiple valve a valve for rectifying electric current and other apparatus used in direct substitution for a valve.

(f) The expression "Place of Public Entertainment" when herein used shall mean a place of public entertainment existing at any time during the subsistence of this Licence.

(g) The expression "Private or Domestic Use" as used herein shall be deemed to include also the use in Public Houses Hotels Boarding Houses Restaurants Cafes Tea

Houses Factories Warehouses Shops and/or small Dance Halls (only) Provided That such are not attached to or do not form part of a theatre or cinema.

(h) The expression "Selling" when herein used shall be deemed to include selling on the so-called time payment or hire-purchase system.

(i) The word "Plate" when herein used shall be deemed to include transfer.

2. (a) The Grantor grants and agrees to grant to the Licensee subject to the terms and conditions herein appearing a personal non-exclusive non-assignable licence to use and exercise all or any of the inventions the subject of Letters Patent applicable to broadcast sound receivers television receivers and radiogramophones respectively in respect of which and insofar as the Grantor now has or may hereafter during the subsistence of this Licence have power to grant licences or sub-licences for the purposes and on the terms hereof (which Letters Patent are herein collectively called "the said Letters Patent"(for the purposes of manufacturing using selling or letting on hire within the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth under mandate or otherwise (i) broadcast sound receivers (ii) television receivers and (iii) radiogramophones but in each case only for private or domestic use or for the purpose of lectures or demonstrations in any institution of a charitable educational philanthropic or religious character (such lectures or demonstrations not being open to the public generally and not being held for payment) and not otherwise. Such Licence shall be deemed to have commenced on the first day of July 1953 and shall continue until the 30th day of June 1958 unless previously revoked as hereinafter provided.

(b) The Licensee undertakes that all companies or firms now or hereafter during the subsistence of this Licence

directly or indirectly owned or controlled by the Licensee and all Companies or Firms formed by the Licensee during the subsistence of this Licence and directly or indirectly owning or controlling the Licensee shall if engaged in any field of business to which this Licence is applicable forthwith accept licences from the Grantor upon the same terms as this Licence and the Grantor agrees to grant such licences accordingly. If the Licensee shall become directly or indirectly owned or controlled by a company or firm which does not hold or forthwith obtain a licefice from the Grantor upon the same terms as this Licence the Grantor shall be at liberty to revoke this Licence.

(c) The Grantor covenants and agrees to provide to the Licensee an accurate list of the said Letters Patent current at the first day of July 1953 and to advise the Licensee at least quarterly thereafter of changes additions and revisions to this list occasioned by expiration of any of the said Letters Patent or by the granting of new Letters Patent or by any other cause.

3. (a) Nothing contained herein shall be deemed to license the Licensee to manufacture import sell or let on hire—

Valves or cathode ray tubes of any kind; or
Any other individual component part of broadcast sound receivers radiogramophones or television receivers other than in and forming part of a broadcast sound receiver radiogramophone or television receiver Provided Always that the Licence shall not licence the Licensee to manufacture sell or let on hire the material of or any material used in any component part.

The expression "Component Part" when herein used shall mean any individual constituent part of broadcast sound receivers, radiogramophones and/or television receivers.

(b) The Licence hereby granted shall not authorise the use or exercise of broadcast sound receivers or any television receivers or any radiogramophones for any purpose whatsoever other than the purposes herein set forth and in particular shall not authorise the use or exercise of any of the said apparatus by operating the same for revenue-earning purposes. Nor shall this Licence authorise the use or exercising of any of the said apparatus for purposes of receiving sound or television broadcasting or operating any radiogramophones in relation in any manner to the service of any place of public entertainment or of any place in which any business requiring any licence from public authority is conducted (except insofar as such use is authorized under the definition of "Private and Domestic Use") or for use with a microphone.

(c) The Grantor agrees to take all necessary action either at law or in equity to prevent any person or persons firm or firms corporation or corporations and company or companies whomsoever and whatsoever manufacturing or selling or letting on hire broadcast receivers television receivers and/or radiogramophones which embody or utilise or are designed to embody or utilise any invention the subject of the said Letters Patent during the term of this Licence without payment of the royalties specified hereunder.

4. The Licensee agrees with the Grantor as follows:—

(a) From time to time on the request of the Grantor to furnish to the Grantor diagrams and/or samples of all broadcast sound recivers and/or television receivers and/or radiogramophones for the time being manufactured sold or let on hire by the Licensee.

(b) To attach or cause to be attached in a prominent position to all broadcast sound receivers television receivers and radiogramophones sold or hired or offered or exposed for sale or hire by the Licensee (or in the case of a

set of component parts for such apparatus to supply for attachment to the assembled apparatus by the constructor therof) a plate marked by the Grantor with a Serial Number determined by the Grantor and indicating the number of valves (as hereinbefore defined) and bearing the following words:

With respect to Broadcast Sound Receivers and/or Television Receivers and/or Radiogramophones:

> "No. ..... This instrument was manufactured under a Licence granted by Australian Radio Technical Services and Patents Company Pty. Limited in respect of Letters Patent controlled by it for the reception in the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth of Sound and/or Television broadcast by wireless but only for private or domestic use and not for operation for any public or commercial or revenue-earning purpose. N. B.—A Post Office Licence is necessary."

Plates complying with the above may be obtained from the Grantor and no such plate shall be removed from any broadcast sound receiver or television receiver or radiogramophone to any other apparatus without the previous consent in writing of the Grantor and no broadcast sound receiver or television receiver or radiogramophone shall be or be deemed to be licensed hereunder unless such a plate be attached thereto and the absence of such a plate so marked from any broadcast sound receiver or television receiver or radiogramophone shall be conclusive evidence that the same is not licensed hereunder. In addition if required by law the Licensee shall further mark in accordance with the requirements of the Patent Act of the Commonwealth of Australia or any amendments thereof made during the subsistence of this Licence all broadcast sound receivers and/or television receivers and/or radiogramophones covered by this Licence which are manufactured sold let on hire or put into use by the Licensee.

(c) So far as is reasonably practicable to make the conditions of this License a condition of every sale on hire binding upon and observable by every purchaser or hirer of any broadcast sound receiver and/or television receiver and/or radiogramophones sold or hired or offered or exposed for sale or hire by the Licensee.

(d) To pay to the Grantor by way of royalty:

(i) In respect of all complete broadcast sound receivers and complete radiogramophones sold let on hire or put into use by the Licensee during the subsistence of this Licence whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent royalties upon the following scale based on the Licensee's net turnover as hereinafter defined in this sub-Clause (d)(i)—

¾ of 1% (three-quarters of one per centum) of the Licensee's net turnover of broadcast sound receivers and/or radiogramophones.

For the purpose of this sub-clause (d)(i) the expression "net turnover" shall be ascertained by multiplying the number of each type of complete broadcast sound receivers including valves and/or complete radiogramophones including valves sold let on hire or put into use by the Licensee by the highest price excluding Sales Tax and excluding the price of batteries of any kind at which each such type is sold in each month at genuine arms-length trading to the Licensee's largest distributor or customer in which the Licensee has no interest by share-holding or otherwise. "Largest distributors or customers" shall mean that distributor or customer or alternatively those distributors or customers enjoying the longest discount or best price and who alone absorbs or together absorb not less than twenty per centum of the net turnover of the Licensee.

(ii) In respect of all complete television receivers sold let on hire or put into use by the Licensee during the subsistence of this Licence whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent royalties upon the following scale based on the Licensee's net turnover as hereinafter defined in this sub-Clause (d)(ii)—

Television Receivers which incorporate both sound only receiving apparatus gramophone apparatus	Television Receivers which incorporate sound only receiving apparatus or gramophone apparatus but not both	All other Television Receivers	
4 %	4½%	5 %	of the Licensee's net turnover if such turnover is less than £40,000 per annum.
3¼%	3¾%	4¼%	of the Licensee's net turnover if such turnover is or exceeds £40,000 and is less than £70,000 per annum.
2¼%	3¼%	3¾%	of the Licensee's net turnover if such turnover is or exceeds £70,000 and is less than £100,000 per annum.
2¼%	2¾%	3¼%	of the Licensee's net turnover if such turnover is or exceeds £100,000 per annum.

For the purposes of this sub-Clause (d)(ii) the expression "net turnover" of television receivers shall be ascertained by multiplying the number of each type of complete television receiver including valves sold let on hire or put into use by the Licensee by the highest price excluding Sales Tax and excluding the price of batteries of any kind at which each such type is sold in each month at genuine arms-length trading to the Licensee's largest distributor or customer in which the Licensee has no interest by shareholding or otherwise.

"Largest distributors or customers" shall mean that distributor or customer or alternatively those distributors or customers enjoying the longest discount or best price and who alone absorbs or together absorb not less than twenty per cent of the net turnover of the Licensee.

(iii) In respect of all broadcast sound receivers and/or television receivers not complete with valves cathode ray tubes cabinet and loudspeaker or any of them and in respect of all radiogramophones not complete with valves cabinet loudspeaker pickup and motor or any of them sold or let on hire or offered for sale or hire by the Licensee during the subsistence of this Licence whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent the same percentages of the Licensee's net turnover as in the preceding sub-Clauses (d)(i) and (d)(ii) respectively hereinbefore set forth provided that the price of each incomplete broadcast sound receiver or television receiver or radiogramophone shall be determined by adding to the sale price thereof an amount being the total of the sale price of valves cathode ray tubes loudspeaker cabinet and other components (excluding batteries) necessary to constitute a complete broadcast sound receiver or television receiver or radiogramophone such price to be certified by a Public Accountant to be appointed by the Grantor and when so determined shall be included as part of the Licensee's net turnover for the particular year in which the same shall be sold let on hire or offered for sale.

Provided Always that in respect of broadcast sound receivers or television receivers or radiogramophones manufactured or sold by the Licensee which employ any Letters

Patent under which the Grantor may become liable to pay a royalty to a third party or to share a royalty with a third party the Grantor shall offer to the Licensee and the Licensee may accept the right to the inclusion in this Licence of that Letters Patent on payment to the Grantor of an additional royalty of such amount as may be required to enable the Grantor out of the total royalties paid by the Licensee both to retain the royalties payable under this sub-Clause and to satisfy the terms of the licence or agreement under which royalty is or shall be payable by the Grantor. The Grantor shall if so required in writing by the Licensee furnish the Licensee with proof of the third party's claim to royalty. The Grantor shall upon request of the Licensee and the Licensee shall upon request of the Grantor permit the Grantor to examine free of charge diagrams and/or samples of broadcast sound receivers and television receivers and radiogramophones manufactured or proposed to be manufactured by the Licensee and advise whether such apparatus embodies or utilises any invention the subject of any of the said Letters Patent under which the Grantor may be liable for royalty to a third party as herein mentioned. The Grantor shall inform the Licensee of the amount of any such additional royalty and any such additional royalty shall be shown separately in the returns hereinafter mentioned.

(c) Keep proper and accurate and separate accounts of everything necessary to ensure an accurate return to be made each calendar month in conformity with any of the provisions of this License showing the royalties payable under the last preceding sub-Clause (d) and to render such accounts within thirty (30) days of the last day of each calendar month in each year to such person as the Grantor may designate to the Licensee from time to time and to accompany each such account with a remittance based on the estimated annual turnover of the Licensee in

respect of the royalties thereby shown to be due. In the event that the Licensee fails to keep the books of account above-mentioned in addition to any other rights and remedies the Grantor may have the Licensee agrees to pay to the Grantor the amount of royalty which the Grantor may by notice in writing to the Licensee stipulate as the amount estimated to be due unless the Licensee proves that the royalty due should be some other amount.

(f) The Licensee shall furnish monthly returns verified by the Auditor of the Licensee or by a Statutory Declaration of the proper officer and in the event of any dispute shall permit the Grantor to appoint a Public Accountant to inspect the books and accounts of the Licensee relative to this Licence.

(g) To pay to the Grantor on the execution hereof for the first yearly period of this Licence and thereafter so long as the Licensee shall continue to manufacture sell or hire or offer or expose for sale or hire broadcast sound receivers and/or television receivers and/or radiogramophones in advance each year during the period of this Licence the sum of one hundred and fifty pounds (£150) as minimum royalty for the yearly period, which sum shall in no event be returnable.

(h) Not at any time during the subsistence hereof to dispute or impeach or to assist others to dispute or impeach the validity of the said Letters Patent.

(i) Not to assign transfer mortgage grant sublicences under or in any manner part with the possession or control of this License or any part of it without the previous written consent of the Grantor.

5. During the subsistence of this Licence the Grantor will keep the Licensee fully indemnified against costs and damages arising in connection with all actions proceedings claims and demands which may be made against the Licensee by any third party who seeks to establish or estab-

lishes to the satisfaction of a court of competent jurisdiction within the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth under mandate or otherwise his right to restrain the use and exercise by the Licensee under the Grant contained under this Licence of any of the said Letters Patent on the ground that such use and exercise is an infringement of any legal rights or legal interests of such third party in such Letters Patent Provided Always that the Grantor is immediately informed of the institution of such proceedings and is given full and complete rights to take over at its own cost and through its own solicitors the defence of such proceedings if it so requests and in that event the Licensee shall assist the Grantor in every reasonable manner but the Grantor shall be a liberty to compromise submit to judgment in abandon discontinue or otherwise dispose of the same as to it may seem expedient.

6. The Grantor may revoke this Licence upon the happening of any of the following events:—

(a) If any royalty return or any royalty shown to be due is not rendered or is unpaid for thirty (30) days after the last day of any preceding month and remains unrendered or unpaid for seven (7) days after notice in that behalf from the Grantor; or

(b) If there be any breach on the part of the Licensee of any other of the agreements herein contained and the same be not remedied made good or desisted from within seven (7) days of notice in that behalf from the Grantor; or

(c) If the Licensee shall become bankrupt or compound with his creditors or (being a company) shall go into liquidation whether voluntary or compulsory;

any revocation of this Licence shall be without prejudice to all claims of the Grantor against the Licensee for out-

standing royalties or prior breaches of this Licence or otherwise.

7. Notwithstanding anything herein contained this Agreement and Grant shall not apply to and the Grantor hereby covenants that he will not charge or demand any royalty in respect of broadcast sound receivers and/or television receivers and/or radiogramophones manufactured and exported by the Licensee beyond the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth under mandate or otherwise.

In Witness Whereof the parties hereto have duly executed these presents the day and year first hereinbefore written.

The Common Seal of Australian Radio Technical Services & Patents Company Pty. Limited was hereunto affixed by ..... and ..... two Directors of the Company by order of the Board and in the presence of

.....

.....

.....

Secretary.

(Seal)

Signed Sealed and Delivered by.....

.....

in the presence of.....

(Seal)

which is designed to incorporate valves (whether or not equipped with the valves themselves) and which is designed to receive and translate modulated electrical oscillations broadcast to the public for sound reception. Such expression does not include valves or cathode ray tubes whether or not incorporated in the apparatus nor separate components but shall include sets of component parts and/or any electronic device designed to be used in association with such broadcast sound receiving apparatus.

(b) The expression "Radiogramophone" when herein used shall mean an instrument which is designed to incorporate valves (whether or not equipped with the valves themselves) and which may be used for the reproduction of sound through an electrically operated loudspeaker alternatively from (i) apparatus designed for the reception and translation into sound of modulated electrical oscillations broadcast to the public and (ii) gramophone apparatus (such as turntable and pick-up) designed for the translation into sound of vibrations recorded on a disc sound record. Such expression does not include valves or cathode ray tubes whether or not incorporated in the instrument nor separate components but does include playing desks designed for use in combination with broadcast sound receivers and shall include sets of component parts.

(c) The expression "Television Receivers" when herein used shall mean apparatus (whether or not equipped with valves or equivalent devices) which is intended to receive and translate electrical oscillations modulated by vision and associated sound signals which are broadcast to the public and which is intended for use for entertainment or education purposes or is of a type normally supplied to the public for domestic use Provided However that such expression shall include:—

(i) the following apparatus combined therewith or sold for combination therewith namely apparatus in-

DEFENDANT'S EXHIBIT NO. 194.

Exhibit S.

Licence No. 6B

An Agreement made this ..... day of ..... 19..... Between Australian Radio Technical Services & Patents Company Pty. Limited having its registered office at 47 York Street Sydney in the State of New South Wales (hereinafter called "the Grantor") of the first part, And.....

.....

of ..... (hereinafter called "the Licence") of the second part.

Whereas the Grantor has the right to grant licences to the extent purpose and for the period of this agreement for all Australian Letters Patent owned or controlled by Amalgamated Wireless (Australasia) Limited, Standard Telephones & Cables Pty. Limited, N. V. Philips Gloeilampenfabrieken, Neutrodyne Proprietary Limited and Electric And Musical Industries Limited.

And Whereas the Licensee claims to be a bona fide manufacturer of broadcast sound receivers and/or television receivers and/or radiogramophones and as such manufacturer has applied to the Grantor to grant and the Grantor has agreed to grant to the Licensee a licence under the Letters Patent and upon the terms and conditions hereinafter mentioned and in consideration of the royalties herein reserved and assessed upon the basis agreed between the parties as being convenient. Now It Is Hereby Agreed As Follows:—

1. (a) The expression "Broadcast Sound Receiver" when herein used shall mean broadcast receiving apparatus

tended for the reception and translation of electrical oscillations modulated by sound signals which are broadcast to the public but are not accompanied by vision signals (hereinafter referred to as "sound only receiving apparatus") apparatus intended for the reproduction of sound from records (hereinafter referred to as "gramophone apparatus") and signal boosting apparatus,

(ii) television receiving apparatus of the kind supplied by a broadcast television relay service as the subscriber's terminal units,

(iii) sets of component parts as hereinafter defined.

Provided Further that the expression "Television Receivers" shall Not include:—

any broadcast relay apparatus other than the terminal units referred to as included under item (ii) above, or Television Receivers adapted for producing a picture larger than 30 square feet.

(d) The expression "Set of Component Parts" for broadcast sound receivers or television receivers or radiogramophones when herein used shall mean a number of component parts which are capable of being assembled so as substantially to constitute a broadcast sound receiver and/or television receiver and/or radiogramophone.

(e) The expression "Battery Eliminator" when herein used shall mean an apparatus which renders unnecessary the use of one or more batteries in the operation of broadcast sound receiving apparatus or television receiving apparatus or a radiogramophone by facilitating the substitution therefor of electricity mains.

(f) The word "Valve" (or "Valves") when herein used shall be deemed where the context so admits to include inter alia an electron discharge device a multiple valve

a valve for rectifying electric current and other apparatus used in direct substitution for a valve.

(g) The expression "Multiple Valve" when herein used shall mean a valve designed to operate with more than one cathode-anode stream.

(h) The expression "Place of Public Entertainment" when herein used shall mean a place of public entertainment existing at any time during the subsistence of this Licence.

(i) The expression "Private or Domestic Use" as used herein shall be deemed to include also the use in Public Houses, Hotels, Boarding Houses, Restaurants, Cafes, Tea Houses, Factories, Warehouses, Shops and/or small Dance Halls (only) Provided that such are not attached to or do not form part of a theatre or cinema.

(j) The expression "Selling" when herein used shall be deemed to include selling on the so-called time payment or hire-purchase system.

(k) The word "Plate" when herein used shall be deemed to include "transfer".

2. (a) The Grantor grants and agrees to grant to the Licensee subject to the terms and conditions herein appearing a personal non-exclusive non-assignable licence to use and exercise all or any of the inventions the subject of Letters Patents applicable to broadcast sound receivers television receivers and radiogramophones respectively in respect of which and insofar as the Grantor now has or may hereafter during the subsistence of this Licence have power to grant licences or sub-licences for the purposes and on the terms hereof (which Letters Patent are herein collectively called "the said Letters Patent") for the purposes of manufacturing using selling or letting on hire within the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth under mandate or otherwise (i) broadcast sound

receivers (ii) television receivers and (iii) radiogramophones but in each case only for private or domestic use or for the purpose of lectures or demonstrations in any institution of a charitable educational philanthropic or religious character (such lectures or demonstrations not being open to the public generally and not being held for payment) and not otherwise. Such License shall be deemed to have commenced on the first day of July 1953 and shall continue until the 30th day of June 1958 unless previously revoked as hereinafter provided.

(b) The Licensee undertakes that all companies or firms now or hereafter during the subsistence of this License directly or indirectly owned or controlled by the Licensee and all Companies or Firms formed by the Licensee during the subsistence of this Licence and directly or indirectly owning or controlling the Licensee shall if engaged in any field of business to which this Licence is applicable forthwith accept licences from the Grantor upon the same terms as this Licence and the Grantor agrees to grant such licences accordingly. If the Licensee shall become directly or indirectly owned or controlled by a Company or firm which does not hold or forthwith obtain a licence from the Grantor upon the same terms as this Licence the Grantor shall be at liberty to revoke this Licence.

3. (a) Nothing contained herein shall be deemed to license the Licensee to manufacture import sell or let on hire (a) valves or cathode ray tubes of any kind (b) loudspeakers of any kind (c) any other individual component part of broadcast sound receiving apparatus or television receiving apparatus or radiogramophones other than in and forming part of broadcast sound receiving apparatus or television receiving apparatus or a radiogramophone.

(b) The Licence hereby granted shall not authorise the use or exercise of broadcast sound receivers or any television receivers or any radiogramophones for any purpose

whatsoever other than the purposes herein set forth and in particular shall not authorise the use or exercise of any of the said apparatus by operating the same for revenue-earning purposes. Nor shall this Licence authorise the use or exercise of any of the said apparatus for purposes of receiving sound or television broadcasting or operating any radiogramophones in relation in any manner to the service of any place of public entertainment or of any place in which any business requiring any licence from public authority is conducted (except insofar as such use is authorised under the definition of "private and domestic use") or for use with a microphone.

4. The Licensee agrees with the Grantor as follows:—

(a) Not without the previous written consent of the Grantor to export or sell for export or knowingly permit to be exported any broadcast sound receiving apparatus or television receiving apparatus or radiogramophone.

(b) Not without the previous written consent of the Grantor to sell or hire or offer or expose for sale or hire in the territory for which this Licence is granted any broadcast sound receiving apparatus or television receiving apparatus or radiogramophones which have not been manufactured in the territory for which this License is granted.

(c) From time to time on the request of the Grantor to furnish to the Grantor diagrams and/or samples of all broadcast sound receivers and/or television receivers and/or radiogramophones for the time being manufactured sold or let on hire by the Licensee.

(d) To attach or cause to be attached in a prominent position to all broadcast sound receivers television receivers and radiogramophones sold or hired or offered or exposed for sale or hire by the Licensee (or in the case of a set of component parts for such apparatus to supply for attachment to the assembled apparatus by the constructor thereof) a plate marked by the Grantor with a Serial Number

determined by the Grantor and indicating the number of valves (as hereinbefore defined) and bearing the following words:—With respect to Broadcast Sound Receivers and/or Television Receivers and/or Radiogramophones—

> "No. .....This instrument was manufactured under a License granted by Australian Radio Technical Services and Patents Company Pty. Limited in respect of Letters Patent controlled by it for the reception in the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth of Sound and/or Television broadcast by wireless but only for private or domestic use and not for operation for any public or commercial or revenue-earning purpose. N.B.—A Post Office Licence is necessary."

Plates complying with the above may be obtained from the Grantor and no such plate shall be removed from any broadcast sound receiver or television receiver or radiogramophone to any other apparatus without the previous consent in writing of the Grantor and no broadcast sound receiver or television receiver or radiogramophone shall be or be deemed to be licensed hereunder unless such a plate be attached thereto and the absence of such plate so marked from any broadcast sound receiver or television receiver or radiogramophone shall be conclusive evidence that the same is not licensed hereunder. In addition if required by law the Licensee shall further mark in accordance with the requirements of the Patent Act of the Commonwealth of Australia or any amendments thereof made during the subsistence of this Licence all broadcast sound receivers and/or television receivers and/or radiogramophones covered by this Licence which are manufactured sold let on hire or put into use by the Licensee.

(e) So far as is reasonably practicable to make the conditions of this Licence a condition of every sale or hire binding upon and observable by every purchaser or hirer

of any broadcast sound receiver and/or television receiver and/or any radiogramophone sold or hired or offered or exposed for sale or hire by the Licensee.

(f) To pay to the Grantor by way of royalty:—

(i) In respect of each and every broadcast sound receiver and/or radiogramophone sold let on hire or offered or exposed for sale or hire or put into use by the Licensee during the subsistence of this Licence employing or designed to employ a valve or valves the sum of nine pence (9d.) payable in cash prior to issue of licence plate in respect of each and every valve iscluded or intended to be employed therein whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent Provided that in the case of multiple valves employed or intended to be employed in such receiver or radiogramophone each and every cathode-anode stream contained therein shall be deemed to be one valve and the royalty shall be calculated accordingly.

(ii) In respect of all television receivers sold let on hire or put into use by the Licensee during the subsistence of this Licence whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent royalties upon the following scale—

(a) In respect of each and every valve employed or intended to be employed in a television receiver which incorporates both sound only receiving apparatus and gramophone apparatus the sum of two shillings (2/-) payable in cash prior to issue of licence plate.

(b) In respect of each and every valve employed or intended to be employed in a television receiver which incorporates a sound only receiv-

ing apparatus or gramophone apparatus but not both the sum of two shillings and six pence (2/6) payable in cash prior to the issue of licence plate.

(c) In respect of each and every valve employed or intended to be employed in all other television receivers the sum of three shillings (3/-) payable in cash prior to the issue of licence plate.

Provided That in the case of multiple valves employed or intended to be employed in such television receivers each and every cathode-anode stream contained therein shall be deemed to be one valve and royalty shall be calculated accordingly.

Provided Always that no royalty shall be payable under paragraphs (i) and (ii) of this sub-Clause (f) in respect of a battery eliminator incorporated in and forming part of a complete broadcast sound receiver or television receiver or radiogramophone And Provided Always that in respect of broadcast sound receivers or television receivers or radiogramophones manufactured or sold by the Licensee which employ any Letters Patent under which the Grantor may become liable to pay a royalty to a third party or to share a royalty with a third party the Grantor shall offer to the Licensee and the Licensee may accept the right to the inclusion in this Licence of that Letters Patent on payment to the Grantor of an additional royalty of such amount as may be required to enable the Grantor out of the total royalties paid by the Licensee both to retain the royalties payable under this sub-clause (f) and to satisfy the terms of the licence or agreement under which royalty is or shall be payable by the Grantor. The Grantor shall if so required in writing by the Licensee furnish the Licensee with proof of the third party's claim to royalty. The Grantor shall upon request of the Licensee and the Licensee shall upon

request of the Grantor permit the Grantor to examine free of charge diagrams and/or samples of broadcast sound receivers and television receivers and radiogramophones manufactured or proposed to be manufactured by the Licensee and advise whether such apparatus embodies or utilises any invention the subject of any of the said Letters Patent under which the Grantor may be liable for royalty to a third party as herein mentioned. The Grantor shall inform the Licensee of the amount of any such additional royalty and any such additional royalty shall be shown separately in the accounts hereinafter mentioned.

(g) Keep proper and accurate and separate accounts of everything necessary to enable a Public Accountant appointed by the Grantor to ascertain whether the royalties payable under each of the paragraphs (i) and (ii) of the last preceding sub-Clause (f) have been paid. In the event that the Licensee fails to kep the books of account abovementioned in addition to any other rights and remedies the Grantor may have the Licensee agrees to pay to the Grantor the amount of royalty which the Grantor may by notice in writing to the Licensee stipulate as the amount estimated to be due unless the Licensee proves that the royalty due should be some other amount.

(h) The Licensee shall permit a Public Accountant appointed by the Grantor to inspect the books and accounts of the Licensee relative to this Licence. In the event of such inspection revealing any short payment of royalty the Licensee agrees to pay to the Grantor the costs of such inspection in addition to any such royalty short paid.

(i) Not at any time during the subsistence hereof to dispute or impeach or to assist others to dispute or impeach the validity of the said Letters Patent.

(j) Not to assign transfer mortgage grant sub-licences under nor in any manner part with the possession or control of this Licence or any part of it without the previous written consent of the Grantor.

5. During the subsistence of this Licence the Grantor will keep the Licensee fully indemnified against costs and damages arising in connection with all actions proceedings claims and demands which may be made against the Licensee by any third party who seeks to establish or establishes to the satisfaction of a court of competent jurisdiction within the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth under mandate or otherwise his right to restrain the use and exercise by the Licensee under the Grant contained under this Licence of any of the said Letters Patent on the ground that such use and exercise is an infringement of any legal rights or legal interests of such third party in such Letters Patent Provided Always that the Grantor is immediately informed of the institution of such proceedings and is given full and complete rights to take over at its own cost and through its own solicitors the defence of such proceedings if it so requests and in that event the Licensee shall assist the Grantor in every reasonable manner but the Grantor shall be at liberty to compromise submit to judgment in abandon discontinue or otherwise dispose of the same as to it may seem expedient.

6. The Grantor may revoke this Licence upon the happening of any of the following events:—

(a) If there be any breach on the part of the Licensee of any of the terms and conditions herein contained and the same be not remedied made good or desisted from within seven (7) days of notice in that behalf from the Grantor; or

(b) If the Licensee shall become bankrupt or compound with his creditors or (being a company) shall go into liquidation whether voluntary or compulsory;

any revocation of this Licence shall be without prejudice to all claims of the Grantor against the Licensee for out-

standing royalties or prior breaches of this Licence or otherwise.

In Witness Whereof the parties hereto have duly executed these presents the day and year first hereinbefore written.

The Common Seal of Australian Radio Technical Services & Patents Company Pty. Limited was hereunto affixed by .....and .....two Directors of the Company by order of the Board and in the presence of

.....

Secretary.

(Seal)

Signed Sealed and Delivered by

.....

in the presence of.....

.....

(Seal)

DEFENDANT'S EXHIBIT NO. 195.

Licence No. 7B.

An Agreement made this ..... day of ..... 1961 Between Australian Radio Technical Services & Patents Company Pty. Limited having its registered office at 47 York Street Sydney in the State of New South Wales (hereinafter called "the Grantor") of the first part, And ..... of ..... (hereinafter called "the Licensee") of the second part.

Whereas the Grantor has the right to grant licences to the extent purpose and for the period of this agrement for all Australian Letters Patent owned or controlled by Amalgamated Wireless (Australasia) Limited, Standard Telephones & Cables Pty. Limited, N. V. Philips' Gloeilampanfabrieken, Neutrodyne Proprietary Limited, Electric and Musical Industries Limited and Pye Limited.

And Whereas the Licensee claims to be a bona fide manufacturer of broadcast sound receivers and/or television receivers and/or radiogramophones and as such manufacturer has applied to the Grantor to grant and the Grantor has agreed to grant to the Licensee a licence under the Letters Patent and upon the terms and conditions hereinafter mentioned and in consideration of the royalties herein reserved and assessed upon the basis agreed between the parties as being convenient. Now It Is Hereby Agreed As Follows:—

1(a). The expression "Broadcast Sound Receiver" when herein used shall mean broadcast receiving apparatus which is designed to incorporate valves (whether or not equipped with the valves themselves) and which is designed to receive and translate modulated electrical oscillations brodacast to the public for sound reception. Such expres-

sion does not include valves or cathode ray tubes whether or not incorporated in the apparatus nor separate components but shall include sets of component parts and/or any electronic device designed to be used in association with such broadcast sound receiving apparatus.

(b) The expression "Radiogramophone" when herein used shall mean an instrument which is designed to incorporate valves (whether or not equipped with the valves themselves) and which may be used for the reproduction of sound through an electrically operated loudspeaker alternatively from (i) apparatus designed for the reception and translation into sound of modulated electrical oscillations broadcast to the public and (ii) gramophone apparatus (such as turntable and pick-up) designed for the translation into sound of vibrations recorded on a disc sound record. Such expression does not include valves or cathode-ray tubes whether or not incorporated in the instrument nor separate components but does include playing desks designed for use in combination with broadcast sound receivers and shall include sets of component parts.

(c) The expression "Television Receivers" when herein used shall mean apparatus (whetehr or not equipped with valves or equivalent devices) which is intended to receive and translate electrical oscillations modulated by vision and associated sound signals which are broadcast to the public and which is intended for use for entertainment or education purposes or is of a type normally supplied to the public for domestic use Provided However that such expression shall include:—

(i) the following apparatus combined therewith or sold for combination therewith namely apparatus intended for the reception and translation of electrical oscillations modulated by sound signals which are broadcast to the public but are not accompanied by vision signals (hereinafter referred to as "sound only

receiving apparatus") apparatus intended for the reproduction of sound from records (hereinafter referred to as "gramophone apparatus") and signal boosting apparatus,

(ii) television receiving apparatus of the kind supplied by a broadcast television relay service as the subscriber's terminal units,

(iii) sets of component parts as hereinafter defined

Provided Further that the expression "Television Receivers" shall Not include:—

any broadcast relay apparatus other than the terminal units referred to as included under item (ii) above, or Television Receivers adapted for producing a picture larger than 30 square feet.

(d) The expression "Set of Component Parts" for broadcast sound receivers or television receivers or radiogramophones when herein used shall mean a number of component parts which are capable of being assembled so as substantially to constitute a broadcast sound receiver and/or television receiver and/or radiogramophone.

(e) The expression "Battery Eliminator" when herein used shall mean an apparatus which renders unnecessary the use of one or more batteries in the operation of broadcast sound receiving apparatus or television receiving apparatus or a radiogramophone by facilitating the substitution therefor of electricity mains.

(f) The word "Valve" (or "Valves") when herein used shall be deemed where the context so admits to include inter alia an electron discharge device a multiple valve a valve for rectifying electric current and other apparatus used in direct substitution for a valve.

(g) The expression "Multiple Valve" when herein used shall mean a valve designed to operate with more than one cathode-anode stream.

(h) The expression "Place of Public Entertainment" when herein used shall mean a place of public entertainment existing at any time during the subsistence of this Licence.

(i). The expression "Private or Domestic Use" as used herein shall be deemed to include also the use in Public Houses Hotels Boarding Houses Restaurants Cafes Tea Houses Factories Warehouses Shops and/or small Dance Halls (only) Provided that such are not attached to or do not form part of a theatre or cinema.

(j) The expression "Selling" when herein used shall be deemed to include selling on the so-called time payment or hire-purchase system.

(k) The word "Plate" when herein used shall be deemed to include "transfer" or "sticker".

2(a). The Grantor grants and agrees to grant to the Licensee subject to the terms and conditions herein appearing a personal non-exclusive non-assignable licence to use and exercise all or any of the inventions the subject of Letters Patent applicable to broadcast sound receivers television receivers and radiogramophones respectively in respect of which and insofar as the Grantor now has or may hereafter during the subsistence of this Licence have power to grant licences or sub-licences for the purposes and on the terms hereof (which Letters Patent are herein collectively called "the said Letters Patent") for the purposes of manufacturing using selling or letting on hire within the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth under mandate or otherwise (i) broadcast sound receivers (ii) television receivers and (iii) radiogramophones but in each case only for private or domestic use or for the purpose of lectures or demonstrations in any institution of a charitable educational philanthropic or religious character (such lectures or demonstrations not being open to the public generally and not being held for payment) and not

otherwise. Such Licence shall be deemed to have commenced on the first day of January 1961 and shall continue until the 31st day of December 1965 unless previously revoked as hereinafter provided.

(b) The Licensee undertakes that all companies or firms now or hereafter during the subsistence of this Licence directly or indirectly owned or controlled by the Licensee and all Companies or Firms formed by the Licensee during the subsistence of this Licence and directly or indirectly owning or controlling the Licensee shall if engaged in any field of business to which this Licence is applicable forthwith accept licences from the Grantor upon the same terms as this Licence and the Grantor agrees to grant such licences accordingly. If the Licensee shall become directly or indirectly owned or controlled by a Company or Firm which does not hold or forthwith obtain a licence from the Grantor upon the same terms as this Licence the Grantor shall be at liberty to revoke this Licence.

3(a). Nothing contained herein shall be deemed to license the Licensee to manufacture import sell or let on hire (a) valves or cathode ray tubes of any kind (b) loudspeakers of any kind (c) any other individual component part of broadcast sound receiving apparatus or television receiving apparatus or radiogramophones other than in and forming part of broadcast sound receiving apparatus or a radiogramophone.

(b) The Licence hereby granted shall not authorise the use or exercise of broadcast sound receivers or any television receivers or any radiogramophones for any purpose whatsoever other than the purposes herein set forth and in particular shall not authorise the use or exercise of any of the said apparatus by operating the same for revenue-earning purposes. Nor shall this Licence authorise the use or exercise of any of the said apparatus for purposes of receiving sound or television broadcasting or operating any

radiogramophones in relation in any manner to the service of any place of public entertainment or of any place in which any business requiring any licence from public authority is conducted (except insofar as such use is authorised under the definition of "private and domestic use") or for use with a microphone.

4. The Licensee agrees with the Grantor as follows:—

(a) Not without the previous written consent of the Grantor to export or sell for export or knowingly permit to be exported any broadcast sound receiving apparatus or television receiving apparatus or radiogramophone.

(b) Not without the previous written consent of the Grantor to sell or hire or offer or expose for sale or hire in the territory for which this Licence is granted any broadcast sound receiving apparatus or television receiving apparatus or radiogramophones which have not been manufactured in the territory for which this Licence is granted.

(c) From time to time on the request of the Grantor to furnish to the Grantor, diagrams and/or samples of all broadcast sound receivers and/or television receivers and/or radiogramophones for the time being manufactured sold or let on hire by the Licensee.

(d) To attach or cause to be attached in a prominent position to all broadcast sound receivers television receivers and radiogramophones sold or hired or offered or exposed for sale or hire by the Licensee (or in the case of a set of component parts for such apparatus to supply for attachment to the assembled apparatus by the constructor thereof) a plate marked by the Grantor with a Serial Number determined by the Grantor and indicating the number of valves (as hereinbefore defined) and bearing the following words:—With respect to Broadcast Sound Receivers and/or Television Receivers and/or Radiogramophones—

"No. ..... This instrument was manufactured under a Licence granted by Australian Radio Technical

Services and Patents Company Pty. Limited in respect of Letters Patent controlled by it for the reception in the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth of Sound and/or Television broadcast by wireless but only for private or domestic use and not for operation for any public or commercial or revenue-earning purpose. N.B.—A Post Office Licence is necessary."

Plates complying with the above may be obtained from the Grantor and no such plate shall be removed from any broadcast sound receiver or television receiver or radiogramophone to any other apparatus without the previous consent in writing of the Grantor and no broadcast sound receiver or television receiver or radiogramophone shall be or be deemed to be licensed hereunder unless such a plate be attached thereto and the absence of such plate so marked from any broadcast sound receiver or television receiver or radiogramophone shall be conclusive evidence that the same is not licensed hereunder. In addition if required by law the Licensee shall further mark in accordance with the requirements of the Patent Act of the Commonwealth of Australia or any amendments thereof made during the subsistence of this Licence all broadcast sound receivers and/or television receivers and/or radiogramophones covered by this Licence which are manufactured sold let on hire or put into use by the Licensee.

(e) So far as is reasonably practicable to make the conditions of this Licence a condition of every sale or hire binding upon the observable by every purchaser or hirer of any broadcast sound receiver and/or television receiver and/or any radiogramophone sold or hired or offered or exposed for sale or hire by the Licensee.

(f) To pay to the Grantor by way of royalty:—

(i) In respect of each and every broadcast sound receiver and/or radiogramophone sold let on hire or

offered or exposed for sale or hire or put into use by the Licensee during the subsistence of this Licence employing or designed to employ a valve or valves the sum of four pence (4d.) payable in cash prior to issue of licence plate in respect of each and every valve included or intended to be employed therein whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent Provided that in the case of multiple valves employed or intended to be employed in such receiver or radiogramophone each and every cathode-anode stream contained therein shall be deemed to be one valve and the royalty shall be calculated accordingly.

(ii) In respect of all television receivers sold let on hire or put into use by the Licensee during the subsistence of this Licence whether or not such apparatus embodies or utilises or is designed or intended to embody or utilise any invention the subject of any of the said Letters Patent royalties upon the following scale—

(a) In respect of each and every valve employed or intended to be employed in a television receiver which incorporates both sound only receiving apparatus and gramophone apparatus the sum of one shilling and three pence (1/3) payable in cash prior to issue of licence plate.

(b) In respect of each and every valve employed or intended to be employed in a television receiver which incorporates a sound only receiving apparatus or gramophone apparatus but not both the sum of one shilling and six pence (1/6) payable in cash prior to the issue of licence plate.

(c) In respect of each and every valve employed or intended to be employed in all other

television receivers the sum of one shilling and nine pence (1/9) payable in cash prior to the issue of licence plate.

Provided That in the case of multiple valves employed or intended to be employed in such television receivers each and every cathode-anode stream contained therein shall be deemed to be one valve and royalty shall be calculated accordingly.

Provided Always that no royalty shall be payable under paragraphs (i) and (ii) of this sub-Clause (f) in respect of a battery eliminator incorporated in and forming part of a complete broadcast sound receiver or television receiver or radiogramophone And Provided Always that in respect of broadcast sound receivers or television receivers or radiogramophones manufactured or sold by the Licensee which employ any Letters Patent under which the Grantor may become liable to pay a royalty to a third party or to share a royalty with a third party the Grantor shall offer to the Licensee and the Licensee may accept the right to the inclusion in this Licence of that Letters Patent on payment to the Grantor of an additional royalty of such amount as may be required to enable the Grantor out of the total royalties paid by the Licensee both to retain the royalties payable under this sub-Clause (f) and to satisfy the terms of the licence or agreement under which royalty is or shall be payable by the Grantor. The Grantor shall if so required in writing by the Licensee furnish the Licensee with proof of the third party's claim to royalty. The Grantor shall upon request of the Licensee and the Licensee shall upon request of the Grantor permit the Grantor to examine free of charge diagrams and/or samples of broadcast sound receivers and television receivers and radiogramophones manufactured or proposed to be manufactured by the Licensee and advise whether such

apparatus embodies or utilises any invention the subject of any of the said Letters Patent under which the Grantor may be liable for royalty to a third party as herein mentioned. The Grantor shall inform the Licensee of the amount of any such additional royalty and any such additional royalty shall be shown separately in the accounts hereinafter mentioned.

(g) Keep proper and accurate and separate accounts of everything necessary to enable a Public Accountant appointed by the Grantor to ascertain whether the royalties payable under each of the paragraphs (i) and (ii) of the last preceding sub-Clause (f) have been paid. In the event that the Licensee fails to keep the books of account abovementioned in addition to any other rights and remedies the Grantor may have the Licensee agrees to pay to the Grantor the amount of royalty which the Grantor may by notice in writing to the Licensee stipulate as the amount estimated to be due unless the licensee proves that the royalty due should be some other amount.

(h) The Licensee shall permit a Public Accountant appointed by the Grantor to inspect the books and accounts of the Licensee relative to this Licence. In the event of such inspection revealing any short payment of royalty the Licensee agrees to pay to the Grantor the costs of such inspection in addition to any such royalty short paid.

(i) Not at any time during the subsistence hereof to dispute or impeach or to assist others to dispute or impeach the validity of the said Letters Patent.

(j) Not to assign transfer mortgage grant sub-licences under nor in any manner part with the possession or control of this Licence or any part of it without the previous written consent of the Grantor.

5. During the subsistence of this Licence the Grantor will keep the Licensee fully indemnified against costs and damages arising in connection with all actions proceedings

claims and demands which may be made against the Licensee by any third party who seeks to establish or establishes to the satisfaction of a court of competent jurisdiction within the Commonwealth of Australia and such territories as may from time to time be administered by the said Commonwealth under mandate or otherwise his right to restrain the use and exercise by the Licensee under the Grant contained under this Licence of any of the said Letters Patent on the ground that such use and exercise is an infringement of any legal rights or legal interests of such third party in such Letters Patent Provided Always that the Grantor is immediately informed of the institution of such proceedings and is given full and complete rights to take over at its own cost and through its own solicitors the defence of such proceedings if it so requests and in that event the Licensee shall assist the Grantor in every reasonable manner but the Grantor shall be at liberty to compromise submit to judgment in abandon discontinue or otherwise dispose of the same as to it may seem expedient.

6. The Grantor may revoke this Licence upon the happening of any of the following events:—

(a) If there be any breach on the part of the Licensee of any of the terms and conditions herein contained and the same be not remedied made good or desisted from within seven (7) days of notice in that behalf from the Grantor; or

(b) If the Licensee shall become bankrupt or compound with his creditors or (being a company) shall go into liquidation whether voluntary or compulsory;

any revocation of this Licence shall be without prejudice to all claims of the Grantor against the Licensee for outstanding royalties or prior breaches of this Licence or otherwise.

In Witness Whereof the parties hereto have duly executed these presents the day and year first hereinbefore written.

The Common Seal Of Australian Radio Technical Services & Patents Company Pty. Limited was hereunto affixed by E. A. Burbury and E. R. Reddell two Directors of the Company by order of the Board and in the presence of (Illegible),

Secretary.

E. A. Burbury (Seal)

E. R. Reddell

Licence No. 7B

Australia

Dated the ..... day of

..... 19.....

Australian Radio Technical
Services and Patents
Company Pty. Limited

to

Licence

To use and exercise certain Australian Letters Patent for certain specific purposes as within in connection with Wireless Broadcast Sound Receiving Apparatus and/or Television Receiving Apparatus and/or Radiogramophones.

DEFENDANT'S EXHIBIT NO. 196.

Shackelford Exhibit 132.

January 24, 1951

Mr. Meade Brunet
Historical Outline—

Amalgamated Wireless (Australasia) Ltd. (AWA)
Amalgamated Wireless Valve Company Pty. Ltd. (AWV)

Dear Mr. Brunet:

AWA was formed as a combination of the Australian radio communication interests of British Marconi, Telefunken, and CGTSF. The Government permitted these

Companies to retain only a minority interest as the decision was that communications should be governmentally controlled.

The original equipment of AWA was furnished by the various existing foreign interests, but it was decided that the new communication company (AWA) should begin the manufacture of its own equipment. Marconi, and presumably the other operating companies, sold their stock in AWA to the public but in the case of Marconi at least there still remains a "perpetual" patent license and technical aid agreement flowing in AWA's favor. AWA is also distributor for Marconi.

Marconi's obligations patentwise and informationally to AWA preceded the formation of the RCA, and therefore preceded the Agreement of 1919 between RCA and Marconi. According to the provisions of the RCA-Marconi 1919 Agreement, RCA's rights flowed to Marconi, broadly speaking, for the Eastern Hemisphere including Australasia (Australia, New Zealand and the Fiji Islands). These rights were formally sold to AWA by Marconi in an Agreement between them dated January 22, 1929. Because of the two Agreements (the 1919 RCA-MWT and the 1930-32 Radio Group-AWV Agreements) and the 1929 Marconi-AWA Agreement, RCA's rights in Australasia flowed exclusively to AWA. There was however no agreement between RCA and AWA for exchange of information.

Prior to 1930, AWA manufactured apparatus but not tubes. Their representatives came to the United States in that year and made an arrangement with RCA, GE and Westinghouse (known as the Radio Group) whereby a subsidiary valve company would be established to be owned 55% by AWA, 22½% by RCA, 13½% by IGE, and 9% by Westinghouse. Such ownership was on the basis that dividends were to be in lieu of royalty and service charges. In other words, there is no provision in the 1930-32 AWV-

Radio Group Agreements for the payment of either royalties or service charges by the participating companies.

In 1930 when arrangements for the organization of the Valve Company were made as indicated above, the AWA-Radio Group Agreements contained a provision for AWV to be the exclusive licensee of RCA, GE and Westinghouse until 1955. The Agreements also provided that these three companies would furnish manufacturing information on tubes to AWV. At the time of these Agreements, RCA had begun manufacture of tubes but GE and Westinghouse had terminated their manufacture. This was a factor in setting up of the proportional control.

In 1945, RCA granted to AWA the right to sublicense under its Australian patents in the home radio field through its subsidiary, Australian Radio Technical Services and Patents Pty. Ltd. (ARTS). In addition, patents of most of the large radio concerns are grouped in Australia under ARTS, which is managed by AWA. RCA was to receive 6% of the royalties received by AWA through its participation in ARTS. At about the same time, AWA asked the Radio Group for permission to grant a license to Philips to import or make valves in Australia. This request was rejected.

The RCA-Marconi Agreement of 1919 expired December 31, 1944 so that AWA was not in a position to obtain rights through the RCA-Marconi 1919 Agreement under patents of RCA on inventions made after that date. AWA visited RCA in the summer of 1948, stating that it desired rights under later patents and that it wished to purchase information in the apparatus field which it never had had before. AWA was told that there would be no new deal between our companies without some provision to remove the exclusivity existing under the old arrangements.

New non-exclusive agreements were made by RCA effective January 1, 1949, with both AWA and AWV. These

provided for the furnishing of licence and information to both companies divided as to apparatus for AWA and tubes for AWV, that is, in the broad radio field, until 1961. Provision is made for payment of royalty and service charges by both companies and the percentage of sub-licensing receipts was raised to 20% and made to apply to sub-licensing in both apparatus and tube fields.

The important change from the standpoint of RCA was a provision by separate letters from the two companies to the effect that AWA or AWV as the case might be would grant a license to any U. S. manufacturer upon standard non-discriminatory terms. This was the final breaking down of all exclusivities under RCA patents (with the exception of the communication license in Argentina which has since been changed). This termination of exclusivity was and is regarded by RCA as very important.

At the time of the signing of the Agreements just above, RCA also appointed AWA and AWV as its distributors in Australia and New Zealand, thus making these companies distributors for both Marconi and RCA.

B. E. Shackelford,
License Department.

Attachments—
Agreement RCA-AWA Jan. 1, 1949.
Agreement RCA-AWV Jan. 1, 1949.
Termination Agreement RCA-AWV Dec. 31, 1948.
Letter AWA to RCA Jan. 1, 1949.
Letter AWV to RCA Jan. 1, 1949.

Index,

1. AWA Agreement Outline.
2. AWV Agreement Outline.
3. AWA Agreement dated as of 1/1/49.
4. AWV Agreement dated as of 1/1/49.
5. AWV Termination Agreement dated as of 12/31/48.
6. AWV Letter Agreement dated 1/1/49.
7. AWA Letter Agreement dated 1/1/49.

RCA-AWA Australasia

License And Information Agreement.

January 1, 1949.

Scope—Apparatus for Radio Purposes, excluding Radio Tubes.

Licenses

(a) To AWA—Non-exclusive licenses to make and sell under RCA patents of Australasia. Option for manufacture and sale in the U. S.

(b) To RCA—Non-exclusive license to make and sell under AWA's patents of the U. S. Agreement by AWA to license any U. S. company for manufacture and/or sale in Australasia.

Sub-Licenses

(a) To AWA—Non-exclusive right to grant non-exclusive sub-licenses to others under RCA's patents of Australasia.

(b) To RCA—Non-exclusive right to grant non-exclusive sub-licenses to others under AWA's patents of the U. S.

Note: Certain of the license and sub-license rights are subject to the old Marconi Agreements.

Information—Information to AWA on standard plan.
Filing of Patents—Each to file for the other and to be reimbursed for 70% of the costs.

Compensation

(a) AWA to pay RCA 1.1% of factory costs.
(b) AWA to pay RCA 20% of its sublicensing receipts.

Term

December 1, 1954 and continuing year by year until December 31, 1960. May be terminated after 1954 on one year's notice.

January 25, 1951.

RCA-AWV Australasia.

License And Information Agreement.

January 1, 1949.

Scope—Radio Tubes.

Licenses

(a) To AWV—Non-exclusive licenses to make and sell under RCA patents of Australasia. Option for manufacture and sale in the U. S.
(b) To RCA—Non-exclusive license to make and sell under AWV's patents of the U. S. Agreement by AWV to license under any U. S. company for manufacture and/or sale in Australasia.

Sub-Licenses

(a) To AWV—Non-exclusive right to grant non-exclusive sub-licenses to others under RCA's patents of Australasia.

(b) To RCA—Non-exclusive right to grant non-exclusive sub-licenses to others under AWV's patents of the U. S.

Note: Certain of the license and sub-license rights are subject to the old Marconi Agreements.

Information—Information reciprocal on standard plan.
Filing of Patents—Each to file for the other and to be reimbursed for 50% of the costs.

Compensation

(a) AWV to pay RCA 1½% of net sales.
(b) AWV to pay RCA 20% of its sub-licensing receipts.

Term—Until December 31, 1960.

January 25, 1951.

DEFENDANT'S EXHIBIT NO. 197.

April 5th, 1939.

LBD:jp

License No. 3—New Zealand Pool License.

1 (a) Definition of "Broadcast Receivers".
*(b) Definition of "Set of Component Parts"—Kits.
(c) Definition of "Radiogramophone".
(d) Definition of "Battery Eliminator".
(e) Definition of "Valve".
(f) Definition of "Multiple Valve".
(g) Definition of "Place of Public Entertainment".
*(h) Definition of "Private or Domestic Use"—includes hotels, cafes and dance halls.
(i) Definition of "Selling".
(j) Definition of "Plate".

2 (a) Grantor grants usual non-exclusive non-transferable license under all patents as to which it has right during term of agreement to Licensee on broadcast receivers and radiogramophones; for five years to December 31st, 1944.

(b) Licensee agrees that all controlled companies accept similar license, which Grantor agrees to grant; license revocable if Licensee becomes controlled by a non-licensee.

3 (a) No license granted to sell (1) valves; (2) loudspeakers; (3) television receivers.

(b) No license to sell parts.

(c) License limited to specified apparatus and uses.

4 Licensee agrees:

(a) Not to export without consent of Grantor.

(b) Not to import without consent of Grantor.

(c) To supply Grantor with diagrams and/or samples.

(d) To attach a marking plate marked and supplied by Grantor with Serial Number and number of valves and specified legend. Apparatus not so marked conclusively not licensed.

(e) To make conditions of license a condition of every sale.

(f) To pay royalty

(1) With respect to radio receivers, 3/6d on each valve stream whether or not it utilizes any invention.

(2) With respect to radiogramophones, 3/6d on each valve stream plus 3/6d.

Provided that, if Licensee is not in defulat, at end of each year Licensee is entitled to a reduction on volume of output in accordance with the Schedule.

Provided further no royalty on battery eliminator included in sets; and Provided further Grantor will offer license under patents on which it has to pay royalties for use by Licensee on payment by Licensee of royalties for

such use. Licensee to submit to Grantor diagrams or models to see if they infringe such patents of third parties.

(g) To keep proper records and render accounts and remittance in thirty days after and of, and for, each month; upon failure to keep records, Licensee agrees to pay royalties stipulated by Grantor or prove some other amount.

(h) Licensee to furnish verified returns and permit inspection of records.

(i) To pay minimum annual royalty of £150.

(k) Not to assign without consent of Grantor.

5 Grantor guarantees patent immunity under all patents under which license is granted provided Licensee gives prompt notice to Licensor of any suits, gives Grantor full control, and assists Grantor.

6 Grantor may terminate license:

(a) If royalties are unpaid after due for seven days after notice.

(b) Any other breach not rectified within seven days of notice.

(c) If Licensee becomes bankrupt, etc.

7 (a) Licensee agrees to grant to Grantor a non-exclusive license with right to a sub-license for apparatus and uses within the field of license under all Licensee's patents.

(b) If any invention licensed by Licensee under (a) comes within any of pool patents, the license to Grantor is royalty free; otherwise royalty shall be not more than 5% of selling price and no higher than to any other Licensee, or than paid by Licensee hereunder.

(c) Any license under (a) to continue to December 31st, 1943.

(Schedule of sliding scale royalties).

L. B. Dodds.

DEFENDANT'S EXHIBIT NO. 198.

September 12, 1946

Mr. A. G. Warner, Managing Drector
Neutrodyne Proprietary Limited
440 Lt. Collins Street
Melbourne, C.1
Australia

Dear Mr. Warner:

This will acknowledge receipt of your letter of August 15th enclosing a draft of the proposed License Agreement between A. R. T. S. and the Trade.

With respect to the sugguestion that you make in the third paragraph of your letter relating to payments from Radio Corporation and its associated companies to Neutrodyne being subject to a deduction of ¼% of the royalty on their turn-over as calculated under the License Agreement, this is quite satisfactory to us.

We congratulate you upon the results and we are in full accord with your actions. I would appreciate it very much indeed if you would be good enough to let me know when the formal signing takes place.

Yours very sincerely,

Hazeltine Corporation
President.

JB:OJO

DEFENDANT'S EXHIBIT NO. 199.

(Letterhead of Neutrodyne Proprietary Limited, Melbourne.)

22nd December, 1949.

Mr. J. Binns,
President,
Hazeltine Electronics Corporation,
58-25 Little Neck Parkway,
Little Neck, L. I., N. Y., U. S. A.

Dear Mr. Binns,

I have arranged my affairs in such a way as to enable me to make a trip to America. For two years, I have been expecting to be kicked out of my Cabinet position as Minister of Housing, but so far I have only been abused.

In the meantime, I am exercising my mind on the problem of the radio receiver pool which I hope will recommence on the 1st January 1951—that is to say, in 13 months' time. In order that you may visualise the position in Australia, you must realize that we do not have any television at all, and that we will not have any television on the 1st January 1951; consequently, there will be no actual manufacture of television receivers and therefore no call for any manufacturer to pay royalties upon television receivers.

There will, of course, be the prospective possibilities regarding the manufacture of television receivers but we still may not know the exact details of the television plans or the particular patents which may be used in the future on the part of most manufacturers to signing any license agreement for the payment of royalties upon television reecivers as at the 1st January 1951.

Therefore, we are driven back, to regarding the radio broadcast receiver patent situation as the mainstay of the patent pool. We are making an examination of all the patents in Australia of the various members of the pool which relate to radio receivers (and also for television). The investigation, so far as the radio receivers are concerned, shows that a number of the basic radio inventions have become public property and we are now more concerned with improvement patents some of which will have a short life after 1st January 1951. Accordingly, the residue of receiver patents held by the Pool including ourselves at the 1st January 1951 may be weak in essentiality.

I have been wondering whether we should not seek to strengthen our position here in Australia by inviting Pye of England to join Neutrodyne in the Australian Pool; I have not mentioned or discussed this with Pye. I am bringing with me to America a loose leaf volume of abridgments of patents and applications for patents in the name of Pye which will allow you to make an estimate of the strength of the Pye patent position in Australia.

As to Pye joining Neutrodyne in the Pool, I am not necessarily recommending this course—I am not aware whether Pye would agree to it but at least it might be worthy of consideration and I submit it for your comments.

Yours sincerely,

A. G. Warner,
Managing Director.

(Handwritten in margin.) Expect arrive N. Y. about 31 Dec.

22nd December, 1949

Memo Re Neutrodyne Position.

This document is prepared for the purpose of ascertaining our position in the next Pool, commencing January, 1951.

Most of the subsequent patents are not yet printed. As they are printed they will be sent to New York.

The Red Book contains the Australian specifications which will be in force on 1st January, 1951.

At the back of the Red Book is a list of the patents for which application has been made (some issued), all of which it is anticipated will be in force on the 1st January, 1951.

All the above refers to radio receiver patents and does not include television.

The Black Book contains particulars of patents relating to television exclusively. At the back of the book, and in five subsequent Volumes, are contained printed specifications. The five Volumes will be sent by sea mail. Substantially, all the specifications apply to patents which will be in force on 1st January, 1951. Therefore, with the Black Book and the subsequent five Volumes which will be sent by sea mail, Hazeltine will have a complete dossier of our television position as at the 1st January, 1951.

The loose-leaf folder contains the complete Pye story so that Hazeltine may ascertain whether Pye's assistance in the Patent Pool is worth considering.

Mr. Fox is preparing lists of the television patents in force as at January 1st, 1951, which are owned or controlled by the prospective members of the new Pool. They will be sub-divided and bound according to the Companies in Australia who we think control the patents in each subdivision. It is anticipated that it will take Mr. Fox four or five months to complete this. When completed, we will send you a complete set so that you may, if possible, advise us who are

the strong members of the prospective Pool in Australia, so that I may negotiate to the best advantage.

Note: "Television Transmission Standards Proposed for Australia" are shown on the sheets inside the front cover of the Black Book. The drawings referred to in these standards have not yet been released by the Australian Government Authorities. Fox will send you copies of these drawings and any amendments to the standards as soon as he receives them from the Australian Government.

DEFENDANT'S EXHIBIT NO. 200.

(Letterhead of Electronic Industries Limited, Melbourne, Australia.)

July 7, 1950.

Mr. J. Binns,
President,
Hazeltine Corporation,
58-25 Little Neck Parkway,
Little Neck, N. Y., U. S. A.

Dear Jack,

I have had a number of tentative conversations with Hooke regarding the new pool, and we decided some time ago that we would not move in regard to the Licensees until we had a tentative understanding among the Licensors in regard to the split up of the license receipts (if any), and some arrangement in regard to admitting new-comers to the pool, in view that the pool strength in regard to radio receivers was not as great as previously.

The following arrangements have now been made at a meeting of the pool members held yesterday. These arrangements are not yet set out in writing, but they were

agreed to by members of the pool and notes taken in respect to the matters agreed upon.

The agreement between the pool members is to be for a period of Five years commencing from the 1st January 1951.

Neutrodyne is to receive precisely the same percentage of income in regard to New Zealand upon precisely the same conditions and terms.

In Australia, Neutrodyne is to suffer a reduction from 25% of the proceeds to 23% of the gross proceeds, but is to receive from the pool, £1250 per annum towards the maintenance of the Neutrodyne office in Victoria, which office administers the licensing arrangements with the Licensees in that State.

Philips is to receive an increase from 15% to 16% in Australia, and an increase of from 12% to 16% in New Zealand. Philips little effort may be regarded as blackmail upon a team of partners who were not individually powerful, particularly in regard to radio receivers. Philips argued that in addition to having some patent rights, that they had contributed to the pool 17% of the total contributed by the Four Licensors.

The actual percentage of pay-ins in respect to set production during the past year being approximately as follows:—

Electronic Industries	42%
A. W. A.	27%
Philips	17%
S. T. C.	14%

You will appreciate that television will not start in Australia as a royalty income producer for at least 2½ years after the commencement of this new pool.

I felt that Hazeltines' combinde radio and television patent position was not over strong in these circumstances, and whilst I feel that the other members of the pool also

had certain elements of weakness, I thought it would be a mistake to be obstinate about keeping our previous percentage, in spite of the fact that Electronics were the major contributor to the pool's income, and of course I played this card hard.

I did feel that it was very important that the pool should stand together so that at least some income could be achieved.

In giving away 2% of the Australian income, I did obtain a recovery of £1,250, which of course, may in certain circumstances, be equal to the 2% I have given away. Nevertheless, I do regard it as a minor sacrifice.

The members further agreed that if a new-cower had to be admitted, such as E. M. I., that each of the Licensors would contribute proportionately to his receipts from the pool to the pay-out to the new-incoming full member, and that if three of the pool members agreed to the admission, and terms of admission, then the Fourth member would be bound by the majority decision.

In these circumstances, we have at least achieved unity of the pool members, and we now start our preliminary negotiations with the trade—I will advise you in respect to these matters in due course.

Our general proposals are that we shall issue only one form of license which will be a joint television and radio receiver license, and must be taken in toto, and taken so as to operate from the 1st January 1951. The effect of this will be that every person desiring a television license within the five year period will have to pay upon his radio receivers as from the 1st January 1951.

We also propose to have a different rate of royalty for radio receivers as compared to television receivers. Tentatively, this rate is 2% on radio and 3½% on television. This will mean a substantial drop in the pool's income during the next three years, but this will probably be satisfactory in all the circumstances.

Otherwise, everything continues happily, and the pool income is at the present moment substantial, and at least equal to that of last year.

With best wishes,

I remain,

Yours truly,

A. G. Warner.

DEFENDANT'S EXHIBIT NO. 201.

Air Mail July 20, 1950

Mr. A. G. Warner,
Neutrodyne Proprietary, Ltd.,
Box S45J,
Melbourne, Australia.

Dear Arthur:

Many thanks for your letter of July 7th giving me an outline of your discussions with Hooke. In view of all of the circumstances, I thoroughly concur in the solution that you have reached. I think a reduction of 2 per cent is well worth while in order to get the five-year pool operation, particularly with the television phase included. As you say, the recovery of £1,250 for expenses will probably equal the sacfifice.

I am also in agreement with the terms agreed upon for the admission of additional licensors such as E. M. I. whenever necessary.

I will be very glad to hear from you as to progress when you start the preliminary negotiations with the trade, and I wish you every success in connection therewith.

With very good wish

Yours very sincerely,

Hazeltine Corporation

JB:ojo *President.*

DEFENDANT'S EXHIBIT NO. 202.

(Letterhead of Electronic Industries Limited, Melbourne Australia.)

September 24, 1951.

Mr. J. Binns, President
Hazeltine Corporation,
58-25 Little Neck Parkway,
Little Neck, N. Y. U. S. A.

Dear Jack,

The signing of the Licence Agreement still drags somewhat wearily along.

However, we have now reached the stage where we have a printed Licence, and I send you herewith a copy by air-mail and a further copy by sea-mail.

From this Licence Agreement you will see that upon a sliding basis we receive 1¼% and upwards. Hazeltine's share is in accordance with my previous advice.

I had a ring the other day from the boss of A. W. A.'s Patent Department, a Mr. Burbury, who asked me whether I would agree to E. M. E., London, receiving a share out of the patent pool. In view of the position I replied that I would be prepared to concede some small percentage.

I gathered, although I was not officially informed, that Lionel Hooke has been having some discussions with Sir Ernest in London, and that in the interests of peace, Lionel wanted some authority from one of the licencees in the pool to make some arrangement with Sir Ernest.

Until such time as we have television, I feel we should do our utmost to maintain some income, and to keep the pool together, hence my concurrence in the suggestion.

I have no further details to give you, but immediately Lionel Hooke returns I will have a discussion with him and advise you the result.

You will be interested to know that the Commonwealth Government sold out its 51% shareholding in A. W. A. to the public. The shares were 8/6d paid, and had nett asset backing of about 35/—. The price to the public was 45/—, at which price they were underwritten by Stock Brokers.

A few days after they had been sold, there was a general recession in the market for shares in Australia . . . they have fallen to 39/—. . . .

The main result of the sale of A. W. A. shares by the Government is to leave them in an open competition with ourselves. This will, in the long run I believe, re-act to the benefit of Electronic Industries and Hazeltine.

Yours truly,

A. G. Warner,
Managing Director.

Copy to L. B. Dodds, also copy of Licence #5.

DEFENDANT'S EXHIBIT NO. 203.

(Letterhead of Electronic Industries Limited, Melbourne, Australia.)

April 10, 1958.

Mr. L. B. Dodds,
Hazeltine Corporation,
58-25 Little Neck Parkway,
Little Neck, L. I., New York, U. S. A.

Dear Mr. Dodds;

I have just returned from a meeting of the Pool members at which certain verbal agreements were made, which I have no doubt will be put into operation, supported either by agreement between the parties or that the parties will accept the Minutes of the meeting as being the general authorisation subject to any litigation being necessary, in which case more formal documents may be required.

You will appreciate that I am the only remaining person in the Pool who has been there since the Pool was first started, which gives me a standing in the Pool and an experience which exceeds that of others around the table.

Generally, the division of the Pool was based upon the following factors:—

(a) the patent strength of the member;
(b) the power to support that strength with money and experience;
(c) the power to break up the other fellows patent strength or to support it;
(d) the volume of payment to the Pool by the licensor based upon his production of television and radio receivers (we are the strongest on this count);
(e) the prospects of future patents.

The division determined upon was as follows:—

Hazeltine 21½% of the gross receipts.

E. M. I. 12% —do—

Philips 22½% —do—

and the balance of 44% to A. W. A. and S. T. C., out of which they pay the expenses of operating the Pool—approximately 1%.

The gross receipts for the purpose of the above division are taken after payment to Philips for and on behalf of Parker of approximately .8 of 1% as a royalty payment. Assuming therefore that the average royalty rate is 2.3% the balance of the licensors will distribute 1½% between them in the above proportions.

In order to complete the record I attach hereto a scale of the licence fees agreed upon.

Now as to the past—

It was agreed that for the year ended June 30th, 1956, the cost of Parker should be borne by all members of the Pool proportionately to their old share of the Pool and that A. W. A. and S. T. C. should not be excluded as contributors to the cost of Parker as previously agreed.

It was also agreed that the adjustment on the above new basis should be back-dated to 1st July 1957, with A. W. A. and S. T. C. contributing proportionately to cost of Parker, and should continue until 30th June 1958 at which date the Pool will terminate unless it is renegotiated, which I expect it will be.

A. W. A. agreed to a smaller share and to contribute to share of Parker because of their weakness via RCA anti-trust embarrassment.

All of the above arrangements should make a substantial adjustment in our favour for the reason that our average receipts of last year were less than 21½%, and we also paid

approximately twice the contribution towards Parker than that which we shall now be paying.

Payment to us of the necessary adjustments back to 1956 in the one case and back to 1957 in the other are to be paid out of the future gross income of ARTS and it may be that we will not get the full adjustment during this financial year.

Owing to the complications of the 1956 Parker adjustments at the old rate and the adjustment on the new rate from 1957 up to date, it is rather difficult for me to make an assessment of this in cash because it is a percentage of percentages, but at a rough estimate I think our rebate will be £15,000 and we will continue to be more favourably treated.

As soon as possible I will make an estimate of our income for the year ended June 30th and send it forward to you, but I do not think I can do this much before June since I am dependent very largely upon the accountants of ARTS to work out the adjustment and to make a financial contribution.

Yours truly,

Arthur Warner,
Managing Director.

Television Receivers which incorporate both sound only receiving apparatus and gramophone apparatus:	Television Receivers which incorporate sound only receiving apparatus or gramophone apparatus but not both:	All other Television Receivers:	
4 %	4½%	5 %	of the Licensee's net turnover if such turnover is less than £40,000 per annum.
3¼%	3¾%	4¼%	of the Licensee's net turnover if such turnover is or exceeds £40,000 and is less than £70,000 per annum.
2¾%	3¼%	3¾%	of the Licensee's net turnover if such turnover is or exceeds £70,000 and is less than £100,000 per annum.
2¼%	2¾%	3¼%	of the Licensee's net turnover if such turnover is or exceeds £100,000 and is less than £500,000 per annum.
2 %	2¼%	3 %	of the Licensee's net turnover if such turnover is or exceeds £500,000 and is less than £1,000,000 per annum.
1¾%	2 %	2¼%	of the Licensee's net turnover if such turnover is or exceeds £1,000,000 and is less than £2,000,000 per annum.
1¼%	1¾%	2¼%	of the Licensee's net turnover if such turnover is or exceeds £2,000,000 per annum.

The foregoing scale shall be operative as from 1st July, 1957.

DEFENDANT'S EXHIBIT NO. 204.

October 22, 1958.

Air Mail

Sir Arthur G. Warner
Managing Director
Electronic Industries Ltd.
Box 845 J
Melbourne, Australia

Re: Hazeltine-Neutrodyne Agreement

Dear Sir Arthur:

Upon reviewing some of the documents turned over to me by Mr. Binns it seemed to me that the only document establishing the relationships between Hazeltine and Neutrodyne was the original agreement signed back in 1928. That agreement includes a number of conditions which, if fulfilled, would considerably hamper Neutrodyne in negotiating licenses with ARTS or others and which, of course, have not been followed in practice.

For example, that agreement limits the right of Neutrodyne to issue licenses to those conforming to the Hazeltine printed license in the United States. It also restricts it to granting licenses at royalties not less than 5% and further gives Hazeltine an option to cancel the agreement on 60 days' notice. In addition, the license is restricted in its terms to radio receiving circuits or apparatus which might or might not be broad enough to include television apparatus, valves, and other related devices and circuits.

It may be that you would just as soon continue our very satisfactory relationship on the informal basis existing for many years in spite of this obsolete formal agreement. On the other hand, it occurred to me that perhaps you would

like to replace the original agreement with one which more nearly represents current practices. If you would, I would be glad to draft such an agreement, and submit it for your consideration.

With kind regards,

Sincerely,

Vice President.

LBD:CBS

DEFENDANT'S EXHIBIT NO. 205.

(Letterhead of Electronic Industries Limited, Melbourne Australia.)

January 15, 1959.

Dear Mr. Dodds,

I know that I should have answered your letter of the 22nd October but in fact I handed it over to Mr. Fox for suggestions. I am sure you will enjoy, in confidence, the memo which he sent back. It read:—

". . . Mr. Dodd's tidy mind resents living in the casual conditions of the Binns era, but my instinctive reaction to this letter is to leave well alone and not have a modern formal agreement . . ."

Upon receiving the above note from him, I filed the lot.

Generally, I think we would be better without a formal agreement, but if you want it we are prepared to make it. The advantages of not having a formal agreement in our circumstances are as follows—

We have a long friendly basis of doing business with you going back to 1928 (30 years). The major shareholders of Electronic Industries, myself, my family, and the Abra-

hams and their families, who control Electronic Industries, also have personal relationships with you and some of them are young.

It follows therefore that our friendly relationships will most likely continue for a considerable number of years.

No formal agreement between ourselves can be enforced in any Court of Law, so that after we have 'dotted the i's and crossed the t's' and argued about the clauses, they will still be unenforceable. In fact, we can only hang together with goodwill and good intentions, a point incidentally which is often missed by American companies dealing with Australian organisations.

In addition, a formal agreement is subject to examination by Government Departments, taxation and otherwise, and it is difficult to avoid the commitments of the written agreement whereas if there is no formal agreement one is able to argue the arrangements as circumstances arise from time to time to suit our mutual interest as opposed to that of Government interests.

We are against a formal agreement but if you want one—OK. . . .

Regards,

Yours truly,

Arthur Warner.

DEFENDANT'S EXHIBIT NO. 206.

Air Mail

January 26, 1959.

Sir Arthur G. Warner
Managing Director
Electronic Industries Ltd.
Box 845 J, GPO
Melbourne, Australia

Dear Sir Arthur:

This will acknowledge and thank you for your letter of January 15, 1959, relative to the proposed formal agreement between our companies. Obviously, I got quite a chuckle out of Mr. Fox's comments.

I think you may have misapprehended my motive for suggesting a formal agreement. It was not at all directed towards tightening our present pleasant and informal working arrangements but only to be able to satisfy our Government tax people or Department of Justice if they began to question why we are doing some of the things that we are doing.

However, we are entirely agreeable to continuing under the present informal arrangement, at least until some Government agency questions it which, of course, may be never.

With kind regards.

Sincerely,

.....

Vice President.

LBD:CBS

DEFENDANT'S EXHIBIT NO. 207.

(Letterhead of Electronic Industries Limited,
Melbourne, Australia.)

February 2, 1959.

Mr. L. B. Dodds,
Hazeltine Corporation,
58-25 Little Neck Parkway,
Little Neck, L. I.,
New York, U. S. A.

Dear Mr. Dodds,

I thank you for your letter of the 26th January re a formal agreement.

I understand the position, and if, as and when we want a formal agreement in the light of some Government matter then I think we can frame an agreement to suit our mutual interests as opposed to those of the Government.

Regards,

Yours truly,

Arthur Warner.

DEFENDANT'S EXHIBIT NO. 208.

(Letterhead of Neutrodyne Pty. Ltd., South Melbourne, S.C.4.)

AGW/JE. 2nd February, 1948

Hazeltine Corporation,
1775 Broadway,
New York 19, N. Y.

Attention Mr. J. D. Grayson.

Dear Sirs,

Further to my letter dated 20th January, 1948, in reply to yours of January, I have to advise you that we have now endeavoured to supply the answers to the questions on the form you enclosed, and which is returned herewith. I set out hereunder the method by which we would answer the questions on the form:

1. Date of incorporation: 9th June, 1928.
2. Incorporated under the "Victorian Companies Act, 1915."
3. Officers of the Company:
   Managing Director—A. G. Warner
   Secretary—M. G. Roberts
   Manager—C. E. Tapp (until date of death, 7/1/48).
4. Directors:
   A. G. Warner
   H. P. Abrahams
   C. W. LePlastrier
   G. Sly.

5. Stock Holders:—

	Shares
Estate of late L. H. Abrahams	2,500
øAbrahams, H. P.	5
Electronic Industries Ltd.	24,990
Hazeltine Corporation	70,000
øLe Plastrier, C. W.	5
øSly, G.	5
øWarner, A. G.	5
Warner, Mrs. E.	2,500
øNominee shares held for Directors qualification. Electronic Industries Ltd. beneficial owners.	100,000

6. Depository: If this means the name of the Bank, it is the National Bank of Australasia Limited, 271 Collins Street, Melbourne. If it means the name of the person with whom money is deposited, as set out on the balance sheet, then the name of that person is Electronic Industries Limited.

7. Bank Signatories:—

A. G. Warner, solely
L. R. Machin or C. A. Fox, countersigned by M. G. Roberts.

8. Corporate Agent:—

We are not clear as to what is meant by this, but it would appear to be Neutrodyne Pty. Ltd.

It is not clear whether you want us to sign this form, and if so, how you want it signed; or, alternatively, whether you are merely seeking information for some internal records.

You will note that your letter of October 24th, 1947, has not arrived, and we only have the form to guide us.

You will appreciate that words have different meanings in different countries. In Australia the word "depository" would be a slightly polite way of referring to a lavatory—hence the confusion!

Yours truly,

Neutrodyne Pty. Limited.
A. G. Warner,
Managing Director.

Neutrodyne Proprietary, Ltd.

Incorporated—Date:
Under laws of:
Officers—
Directors—
Capitalization—100,000 shares at £1 each authorized and issued.
Stockholders—

Name	# Shares Held
Hazeltine Corporation	70,000

Depositories—
Bank Signatories—
Corporate Agent—
Present Date:

DEFENDANT'S EXHIBIT NO. 209.

October 2, 1958.

Sir Lionel Hooke,
Amalgamated Wireless (A/asia) Limited,
47 York Street,
Sydney. N. S. W.

Dear Lionel,

There appears to be an error in the method by which the accountants are computing Neutrodyne's share of the pool.

Prior to our meeting in April, and prior to the new arrangements, Parker and EMI received their share before distribution was made to the other licensors. At the April meeting, according to my written notes which I confirmed with Hazeltine, it was agreed that first Parker should receive approximately .8 of 1% as a royalty payment and that the balance would be distributed as follows:

Hazeltine	21½%
E. M. I.	12 %
Philips	22½%

and 44% to A. W. A. and S. T. C., out of which you were to pay the expense of operating the Pool, estimated at 1%.

Under the method adopted by the accountants it appears to me that they have gone back to the old agreement and assumed that before the division is made to Hazeltine, E. M. I. payments should be deducted. For example, if you will examine the statement sent to me under cover of the letter of the 25th September, Schedule 1 Part (b) you will see that the gross revenue from April to June is £256,907, and from this amount the Parker distribution has been properly deducted, but they follow by deducting

the payment to EMI and distributing the balance of £125,116 less expenses as to 21% to Neutrodyne, whereas according to the arrangements we should have received 21% of £163,344. This is the only method of calculating our proportion after deducting the Parker proportion.

I distinctly remember a long argument with EMI on this subject and we only agreed to maintain them on 12% subject to them giving up their priority as set out in the previous agreement.

The accountants have ignored this arrangement and have calculated it on the old rulings.

Will you please investigate and correct? . . .

Regards,

Yours truly,

Arthur Warner.

DEFENDANT'S EXHIBIT NO. 210.

(Letterhead of Electronic Industries Limited, Melbourne Australia.)

January 21, 1959.

Mr. L. B. Dodds,
Hazeltine Corporation,
58-25 Little Neck Parkway,
Little Neck, L. I.
New York, U. S. A.

Dear Mr. Dodds,

On the 10th April last year I wrote you a letter giving you the new break-up of income following a meeting of the Pool Members in that month.

As a result of this and other matters, we started to receive income from ARTS on a satisfactory level, but

subsequently discovered that ARTS' interpretation of the arrangement made at the meeting, and confirmed by them in writing on the 9th April, copy attached, was not being followed in the compilation of the returns, and on October 2nd I wrote a letter, copy also attached.

As a result of this and other correspondence a meeting was held in Sydney on December 22nd to settle the argument, which boiled down to the question as to whether EMI's payment should be deducted from the income before its percentage distribution (as it was in the old agreement, which nobody appeared to remember at the previous meeting).

The argument lasted long and fierce, as a result of which Philips and I agreed to reduce our percentage income from 22½% in the case of Philips and 21½% in the case of Neutrodyne to 21% and 20% respectively. EMI was not to be deducted in the assessment of the net income.

This means in fact that our income was increased by about 1/15th from what it was previously. If you are interested in the mathematics of this division I can send you some copies of correspondence and calculations, but I think the simplest way is to tell you that the arrangement now stands as per ARTS' letter to me of the 6th January, the substance of which is that out of the gross income received by ARTS Parker receives .8 of 1% as a priority payment—the .8 of 1% is of the turnover of the manufacturers.

DEFENDANT'S EXHIBIT NO. 211.

(Letterhead of Electronic Industries Limited, Melbourne, Australia.)

November 17, 1960

Mr. L. B. Dodds,
Hazeltine Corporation,
Little Neck 62,
New York, U. S. A.

Dear Mr. Dodds,

I am sending forward separately two copies of the Balance Sheet.

The nett profit for the year was quite good being £68,415 after income tax. We paid out during the year two dividends amounting to £80,000 and I see no reason why a further dividend of £40,000 should not now be paid since we have sufficient funds for this purpose.

Would you kindly advise whether you think this £40,000 should be paid before Christmas of this year, or after Christmas.

Referring back to the profit, you will notice that it is higher than the previous years and was due to the greater production of T.V. receivers in Australia. I do not anticipate that the income for this year will be very much for the following reasons—

(a) The Pool is being embarrassed by the current RCA situation.

(b) There is a demand from the manufacturers for reduction in ARTS royalty on account of RCA who are asking for a separate royalty, and also on the grounds that there are now no radio patents upon which they should pay at all.

(c) The total production of TV in Australia since the 1st July, has fallen considerably. Accordingly, we must anticipate a falling off of income.

You will notice under the Liabilities that we owed you £23,000 at June 30th and this was sent forward to you on the 9th August as a draft—$53,214.42.

Currently I am engaged in some further negotiations within the Pool and although these were settled in a manner which I have previously reported to you, the whole subject matter has been reopened because of RCA's entry into Australia with a separate licence for which they are asking a royalty of 8/- Australian currency per set.

I do not think it would be very helpful for me to write a long letter dealing with all the points. When I have the matter sorted out and agreement arrived at, I will write giving you details of the settlement.

With king regards,

Yours sincerely,

Arthur Warner.

DEFENDANT'S EXHIBIT NO. 212.

W. M. McFarland January 2, 1963.

Serial XXX-63-T2

B. J. Tiffany
Neutrodyne Proprietary, Ltd.

Sir Arthur Warner called this morning and wanted to set up a meeting with Mr. Dodds and myself. After a brief discussion, Mr. Warner was advised that the meeting should include Mr. McFarland and Mr. Westermann. I discussed the telephone conversation with Mr. McFarland.

Mr. McFarland and I agreed on alternate appointments. The appointment has been arranged for Thursday, January 3, 10:00 A.M. Messrs. Dodds and Westermann have been informed. The other recipients of this memo are hereby advised.

I have arranged for Hazeltine Transportation to meet Sir Arthur Warner at the Hotel Pierre at 9:00 A.M. so that he will arrive at Little Neck at 10:00 A.M. I suggest that the meeting be in Mr. McFarland's office commencing at 10:00 A.M. As the meeting will undoubtedly continue until lunchtime, I would suggest that Messrs. Beam and McFarland, if possible, have lunch with Sir Arthur. Mr. Dodds advised that he will not be free for lunch.

Mr. Warner advised that he would only be in New York for two or three days and then would be off to England.

B. J. Tiffany.

BJT:eew

cc: RLBeam
LBDodds
EARuestow/Patent Dept. Files.
DWestermann
Accounting Dept./Neutrodyne File.

DEFENDANT'S EXHIBIT NO. 213.

(Stamp) Zenith-Rauland Cross
Claimants' Exhibit 674.

FBC/23865

23rd April, 1935.

Mr. A. T. Brown,
International General Electric Co. Inc.,
570 Lexington Avenue,
New York, U. S. A.

Radio Merchandising Position.

Dear Mr. Brown,

I must apologize for the unavoidable delay in replying fully to your letter of the 20th November, 1934, but in order to deal with the situation in an intelligent manner it is necessary to give a complete summary outlining the Australian Radio situation, as there are so many aspects which have a bearing on the question.

(1) Sales Agreement With Amalgamated Wireless (A'sia) Ltd.

In your letter you make reference to an Agreement dated the 20th March, 1928, between Amalgamated Wireless (A'sia) Ltd., and the Australian General Electric Co. Ltd., and under which the latter was permitted on payment of certain royalties to A. W. A., to enter the radio merchandising field. This Agreement was allowed to expire in due course, on January 1st, 1933, although since that time, by mutual consent, the general arrangements have been followed without prejudice, by both parties, as a convenient basis on which to operate; but during the last five years it has been impossible to import receivers (except in very

special cases) due to the Customs Tariff position which has rendered importation prohibitive. (For further details refer to Para. (4).)

(2) International Agreement.

Ever since the inception of Radio Broadcasting in Australia, about 1924, (at which time we became interested in the possibilities of marketing Receivers) our hands have been more or less tied, owing to certain International Agreements under which RCA rights for Australasia were passed to the Marconi Group, and through them were vested in A. W. A., the details of which you are fully conversant with.

In 1931 we received a draft copy (in green cover) of a proposed agreement between the RCA, I. G. E., Westinghouse, Gramophone Co., Columbia, EMI, and A. W. A., and this in turn was followed by a draft copy (in grey cover) of a somewhat similar agreement between the same parties, both dated as of January, 7, 1932. As you are familiar with the terms of both these Agreements, suffice it here to say that apparently A. W. A. were to receive entire control of the Radio Receiver situation in Australasia, except that certain minor rights were reserved to the A. G. E. I. These rights apparently amount to very little and we are of the opinion that at least equal terms could probably be obtained by other Companies or individuals who were in a favourable position similar to our own, so far as trading is concerned.

(3) Sources of Supply of Receivers.

Since the expiry of our sales agreement with A. W. A. as referred to in Para. (1), we have been free to purchase Receivers from any source whatsoever, provided we paid A. W. A. a royalty of 10% on the landed cost of all imported Receivers, in accordance with the old Agreement we had with them. However, bearing in mind the draft

Agreements referred to in Para. (2) and the implied resources of research available to A. W. A., and as they have been manufacturing Radio Receivers in Australia for several years, we considered it advisable to continue purchasing our main supplies from them, anticipating that in the long run they could supply us a higher grade of Receiver that we could obtain from other local sources.

In 1933 our hopes and patience were severely tried, as A. W. A. produced a range of Receivers requiring an unusual amount of servicing, and the prestige of A. W. A. (Radiola) and the A. G. E. I. Ltd., suffered considerably. The 1934 range was much better as regards servicing, although in our opinion A. W. A. displayed little leadership in comparison with the rest of the trade, while the 1935 range just going into production is largely a repetition of last years models with minor modifications. Looking backwards at this stage, it appears as though our interests may possibly have been served better by purchasing from other manufacturers who were prepared to give us sole selling rights in Australia, whereas our efforts with the A. W. A. receivers which we marketed under our own name were overshadowed by them with the goodwill of the trade name "Radiola" which by the way was built up in no small measure by the old A. G. E. Co. Ltd.

(4) Customs Tariff.

The economic wisdom of manufacturing Receivers in Australia may be open to question, but it is very certain that having once engaged in such manufacture and established a secondary industry employing thousands of Australians, no Government would dare to remove altogether the duty at present applied to imported Receivers. The "Scullin" (Labour) Government in the early days of the depression in 1930 voted a total prohibition of the importation of Radio Receivers, and although this embargo was

removed by the next Government, the rate of duty was then set at such a figure as to amount almost to prohibition. As an example, we would instance a friend of the Company who purchased a receiver in the United States for £9, and had to pay £37. duty on entering Australia. Consequently, importation has been restricted to some special lines such as auto receivers, and somewhat novel and consequently expensive Receivers advertised in American magazines and specifically ordered by customers, or required by us as samples to illustrate the trend of American development. At the present time, it is out of the question to consider the regular importation of Receivers owing to the excessive landed costs, particularly on the lower priced Receivers (which represent the bulk of our sales) as the rate of duty is based upon the number of anode streams in the valves.

(5) Patents and Royalties.

(A) Australian Radio Technical Service & Patents Co. Ltd. ("ARTS").

Although the patent situation in Australia has been complicated, any difficulties in this connection have been simplified so far as we are concerned, by the purchase of Receivers from A. W. A. The situation today is not clear, as no attempt has been made through legal processes to determine the merits of relative claims of the different parties, many of whose claims are conflicting. The holders, as listed in the attached advertisement ('C') of the major patent rights, appear to think that it will be more profitable for them to combine together and present a united front, which they have accomplished under the title of "Australian Radio Technical Services & Patents Co. Ltd." On the other hand, the remaining manufacturers have been somewhat indifferent, preferring to pay whatever royalties are demanded and pass on the extra expense to the customer, rather than fight the matter in the courts.

(B) Australian Radio Manufacturers Patents Association Ltd. ("ARMPAL").

These latter manufacturers, however, have recently formed an Association under the title of "ARMPAL" (Australian Radio Manufacturers Patents Association Ltd.) for the purpose of protecting their manufacturing interest, and further information on this score can be obtained from the inaugural speech of "ARMPAL" given verbatim on page 9 of the "Radio & Electrical Merchant" of November 23, 1934, attached herewith. For further reference, a copy of the "ARTS" License No. 1 is also attached. A perusal of these two publications will provide a fair picture of the "ARTS" claims on the one hand, and the reaction of "ARMPAL" to them.

(C) Effect on Imported Receivers.

"ARTS" have been endeavouring to prevent all importations, and have met with some degree of success. We were recently informed verbally by A. W. A. on behalf of "ARTS" that it would be impossible for us to import any further Receiving Sets from U. S. A. as it would constitute an infringement of the "ARTS" patent agreement. We questioned the correctness of this statement, and asked A. W. A. to put it in writing, but this they failed to do, and later telephoned us to the effect that if we only wanted to import one or two special Receivers for particular customers, we could order the Receivers, but should not find it necessary to advise either "ARTS" or themselves of our action, excepting to pay to A. W. A. the royalty of 10% as provided under the old Agreement.

(D) Effect on G. E. Products.

From an I. G. E. viewpoint, this raises a most important issue, as we feel that it is contrary to the

spirit of the Agreement which you have with A. W. A. to place any embargo on the importation of your products into this territory, providing that we are prepared to concede to A. W. A. the royalty of 10% on landed cost, as we have been in the habit of doing for some years past. If this matter is taken up with A. W. A. they will doubtless say that they only represent one party to the "ARTS" Agreement, and that the objection comes from the other parties. We personally believe that the A. W. A. are sufficiently strong to enforce the granting of the permission, should they so desire. However, if they wish to keep your product out of this market, and deprive you of a sales outlet, you are certainly entitled to some compensation, or at least you should have been consulted and your consent obtained before they entered into any agreement which prohibited the sale of your product in this country. Admittedly, owing to the tariff situation, this would not have much immediate effect, but there is always the possibility that the Customs tariff may be lowered, although at the moment there is no indication of any move in this direction.

(6) General.

From our viewpoint, the position, as will be seen from the above, is far from satisfactory, but unfortunately our hands appear to be very securely tied, primarily by the International Agreements which provide for R. C. A. and I. G. E. Australian rights passing to A. W. A., and secondly by the Customs Tariff, and Patents position.

The question asked in the last paragraph of your letter as to whether we are contractally free to purchase Radio Receivers direct from you is one which we are unable to answer. In fact, we feel that you are possibly in a much better position to answer the question than we are.

The writer is leaving for U. S. A. next month and anticipates being in New York about the end of June and will then take an opportunity of discussing this and the radiotron valve position with you at greater length.

Yours very truly,

(Signed) F. B. Clapp.

FBC/AB
SMC
SBC

P/S. Purely as a matter of interest, I am attaching hereto, copy of an advertisement regarding the Valve situation, which recently appeared in the Australian Press.

DEFENDANT'S EXHIBIT NO. 214.

(Stamp) Zenith-Rauland Cross-Claimants' Exhibit 689.

(Letterhead of Australian General Electric Proprietary Limited, Sydney.)

Airmail.

28th April, 1947.

G. S. Eveleth, Esq.,
Vice President,
International General Electric
Company Inc.,
570 Lexington Avenue,
New York, U.S.A.

Dear Mr. Eveleth,

We recently received a letter from Mr. Sadona asking for details, so far as we have them, of the patent pool existing in Australia in regard to radio patents. As this is a subject which I have already broached with you, I am

sending this letter as it will contain some information additional to that which you have already.

It is, I think, worthwhile to recapitulate the history of radio patents in Australia which leads up to the present position which briefly is as follows.

The Australian Wireless Telegraphy Act, which was passed in 1905 and amended from time to time, vests the control of wireless communication in Australia in the Minister named under the Act and prohibits persons from transmitting or receiving unless in possession of a licence issued by the Minister. This covers radio broadcasting as well as radio telegraphy and telephony.

In 1927, the Government entered into an agreement with Amalgamated Wireless (Australasia) Ltd. whereby the latter would make available free of charge to broadcasting stations, listeners, radio manufacturers and dealers, all Australian patent rights or inventions relating to broadcasting which were owned or controlled by A.W.A. or in respect of which A.W.A. had the power to grant licences. It is understood that the A.W.A. advised the Commonwealth that it possessed a licence in perpetuity from Marconi and a licence until 1945 from R.C.A. In return for this, the Government paid A.W.A. 3/d. a year for each listener's licence that was issued.

In 1933 this Agreement was terminated and manufacturers of radio equipment in Australia were obliged to make their own arrangements in respect of the patent situation as a result. Certain holders of Australian patents combined to form a company known as the Australian Radio Technical Services and Patents Co. Ltd. (ARTS) to act as a pool into which were thrown all their patents. The companies founding ARTS were—

(1) Amalgamated Wireless (Australasia) Ltd.
(2) Standard Telephones & Cables (Australasia) Ltd.
(3) Neutrodyne Proprietary Ltd.
(4) N. V. Philips Gloeilafpenfabrieken.

A notice was issued by ARTS in the press on the 20th January, 1934, which stated that ARTS had exclusive right to grant licences in Australia for the sale or use of Broadcast Receivers under patents owned or controlled by (then followed a long list of names including the International General Electric Company Inc.).

Manufacturers of receivers in Australia signed Agreements with ARTS known as Licence No. 1, entitling them under specified terms and conditions, to use all the patents in the pool for a five year period from 1933 to 1938. In 1939 an Agreement of generally similar text, known as Licence No. 3, was made to cover a further five year period from 1939 to 1943. Owing to the prohibition of manufacture of receivers during the war (except for the use of the Armed Services) the subject of licences was not renewed until the end of 1945. Pending the production of a new Agreement, Licence No. 3 was extended as a temporary expedient.

As so many patents had expired, the terms of Licence No. 3 were not acceptable to the licensees, either in regard to the scope of the patents nor the fees payable by the licensees to ARTS. Consequently, after protracted discussions the new Agreement, known as Licence No. 4, was drawn up and signed about a month ago. In this case the licence was extended to cover television and facsimile, radio gramophones and loud speakers. The licence also includes patents covering frequency modulation. This Agreement continues to the end of 1950.

In considering your patents in Australia covering radio, these have been thrown into the pool by A.W.A., but we have no information as to whether there was any written or implied agreement on your part to such a course.

Full information on this matter was sent to Mr. A. T. Brown in a communication dated January 25th, 1934. The matter has been referred to on several occasions subsequently, but as far as I know no replies were received and

we therefore concluded that the A.W.A. were within their rights in pooling the patents. For your ready reference I am enclosing herewith copy of our letter to Mr. Brown of January 25th, 1934.

As far as we know there has been no case of patents which were conceived after the 1st January, 1945, being pooled by A.W.A., and they are therefore not being exploited in Australia. It is, of course, possible that one or more of them may be infringed, but it is extremely difficult, if not virtually impossible, for the A.G.E. Company to police them effectively.

We are attaching a copy of printed forms of Licence Nos. 1 and 3. On the latter alterations have been made in red which would bring it into conformity with Licence No. 4. You will notice we have made no reference to Licence No. 2, which we have not been able to trace, but suspect that it covers transmitters only.

During last year we engaged a well-known consulting engineer, Dr. Geoffrey Builder, to give us a preliminary estimate of the value of your patents in relation to others on cognate subjects in Australia. I am sending a copy of Dr. Builder's report, addressed to you, under separate cover.

The ARTS pool was formed to protect the patents held by the persons associated in the Company. So far as we are able to gather, the remuneration to the persons is in proportion to the number of patents which they contribute to the pool without any relation to the quality or value of such patents. It is for this reason that we have urged your patent department recently to consider the wisdom of filing applications in Australia to cover inventions which have any value at all, even though the scope is narrow. We believe that it would be entirely in your interest to be joined with ARTS in your own name and not through A.W.A. In any case it is our understanding that A.W.A. has no licence

from you for patents on inventions conceived after the 1st January, 1945.

While dealing with this subject I draw your attention to the question of patents in the industrial electronic field. We are directly interested in these through our manufacturing activity, but we are hampered in the use of your designs by reason of your patent arrangements with the Westinghouse Company which so far does not extend to Australia. You will recall that I wrote to you on the subject on August 8, 1945. I have had several letters from Mr. Bush on the subject, the last being that dated April 23, 1946. Indirectly, I am aware that you have discussed the matter with Westinghouse Company as Mr. Henderson, Australian representative of that company, has referred to correspondence from his principals on the subject. So far we have not heard that any finality has been reached.

Yours very truly,

FBC:PJ F. B. Clapp.

c.c. Mr. P. G. Sadona

following mail copy

DEFENDANT'S BULK EXHIBIT NO. 215.

Mr. A. Hannah
"Erambie"
45 Hillone Road
South Tamworth
N.S.D., Australia

December 20, 1956.

Dear Sir:

We received today, your inquiry of October 15, in which you expressed interest in our Transoceanic portable radio receiver, Model Y600.

In accordance with your request, we take pleasure in sending you enclosed, illustrated literature which will give

you complete and detailed information about the basic performance characteristics and operating features.

Although we have been always interested in marketing our Zenith sets, including the Transoceanic, in Australia, we have not been successful in our efforts due to the actions of the Australian Patents Pool. Anyone in Australia importing, distributing, or re-selling Zenith's products has been harrassed and threatened with law suits by this Pool, in consequence of which importers, distributors and dealers have been discouraged from handling our products. It is known to us that there is a considerable number of Transoceanic radio receivers in use in Australia, but most if not all of these instruments were imported directly by individuals or perhaps purchased and brought back by members of the Australian Armed Forces from their overseas tour of duties.

Again thanking you for your interest in our products, we remain,

Yours very truly,

Walter R. Peirels,
Asst. Sales Manager
International Division.

WRP/sd

Air-Mail

Encl.
1386.5

"Erambie"

45 Milburne Road,
South Farnworth,
N. S. D.
Australia,

Oct. 15, '56.

Pls mail Y600 spec. sheet and folder!

Dear Sir:

Following your advertisement in the "National Geographic", my interest has been answered as to the new model Zenith "Super Trans-Oceanic" portable radio and the possibility of securing one in Australia.

Would you kindly forward to the above address information and price of the mentioned radio.

Yours faithfully,

Les A. Hannah.

Mr. Miroslav Blahout
Box 63 G. P. O.
Ballarat Victoria
Australia

March 20, 1957

Dear Sir:

We received your letter of March 13 and we thank you for your kind opinion about the performance or our Super Transoceanic portable radio receiver.

For your convenience we are handing you enclosed illustrated literature which will describe in detail the latest version of our Super Transoceanic portable Model A600.

Although we have always been interested in marketing our Zenith sets in Australia, we have not been successful in this effort because of the Australian Patent Pool. Anyone in Australia importing, distributing or reselling Zenith products has been harassed and threatened with lawsuits by this Pool, in consequence of which importers, distributors and dealers have been discouraged to handle our products. It is hoped that in the not too distant future this situation can be broken to permit us to offer freely our products from distribution and resale in Australia without restrictions or difficulties, except those normally encountered from government import license and exchange regulations.

This does not mean, however, that Zenith products cannot be imported into Australia, as to our knowledge there are no restrictions or prohibitions by the Australian Government on imports of radios from the United States. In the event that you wish to order a Super Transoceanic portable radio receiver Model A600 directly from the factory we shall be pleased to grant you our confidential courtesy prices as follows:

Super Transoceanic Model A600	$83.97
Ballast adapter S-15715 for operation on 220 volt AC/DC	2.94
Battery pack Z-985X	4.65

In addition to the price of the radio receiver and accessories you will have to cover forwarding charges which, according to our estimate, will not exceed the amount of $20.00.

If you intend to purchase one of our radio receivers and accessories for direct shipment from the factory to your address in Australia it will be necessary that you apply to the Australian Government for an import license and an exchange permit to obtain the necessary dollar amount to cover our invoice. We suggest, that you contact your local authorities for full information about import license and exchange permit.

Please feel free to request additional information about our product if such should be needed and thanking you for your interest in our Super Transoceanic portable radio receiver, we remain,

Yours very truly,

Walter R. Peirels,
Assistant Sales Manager
International Division

WRP/jg
1400.3
Encl.

Ballarat 13th March 1957
M. Blahout
Ballarat-Victoria
Australia

Zenith Radio Corporation
Chicago 39, Illinois

Pls. mail folder & spec. sheet A600.

Dear Sir!

After long search, I finally did find your address in "The Saturday Evening Post" from 15th Nov. 1952. Four years ago when I was in the Army (Australian) in Japan and Korea, I saw many Zenith Radios (Super Trans-Oceanic) from your soldiers. I think it was the best I ever saw and since then I am very much interested in same. I am New Australian as I did come here seven years ago from Czechoslovakia and like to listen to news & etc. from home and Europe. Here in Australia is very hard to get good radio with long range reception and if you'll get one is to big and expensive.

I wanted to ask you if would be possible to buy Zenith radio (Super Trans-Oceanic) from your firm. In case they are out of production, even good second-hand would be very welcome. Could you please let me know if and how could I obtain one, price and how to pay for it? I will be leaving soon for "Rum Jungle" so if you would be so kind and let me know soon as possible.

Yours faithfully,

Miroslav Blahout.

Pls. mail A600 folder & spec sheet.

J. F. Brooks & Company
142 Phillip Street
Sydney, Australia

April 15, 1957

Attention: S. Platt

Gentlemen:

We thank you for your letter of April 5th in which you expressed interest in our Model Royal "500" seven-Transistor portable radio receiver for sale in the Canton Island Air Base and for your convenience we are handing you enclosed illustrated and descriptive literature which will give you detailed information about this truly outstanding instrument.

The export distributor price for Model Royal "500" is $45.00 FOB factory Chicago and is subject to a discount of 5% for payment cash-in-advance or by suitable letter of credit.

We can also supply you with genuine cowhide carrying cases at $1.95 net and as a further accessory we can offer you our earphone No. 39-23 at $2.78 net.

The battery complement of the Royal "500" consists of four Mercury batteries type Z-9 which will provide 400 hours of operating time. The price for these batteries is $.39 net each. The Royal "500" can also be operated on four regular Pen-Lite batteries which are available wherever flashlights are sold. Pen-Lite batteries, which we can offer you under our type No. 8 at the price of 6¢ net each, will provide 100 hours operating time.

Please feel free to request additional information if such should be required and looking forward to your further welcome news we remain,

Yours very truly,

WRP:rm
Air-Mail
1409.4

Walter R. Peirels,
Assistant Sales Manager
International Division.

(Letterhead of J. F. Brooks & Co., Sydney, Australia.)

5th April, 1957

The President,
Zenith Radio Corporation,
Chicago 39, Ill.,
U. S. A.

Dear Sir,

We are interested in the purchase of Model Royal "500" 7-Transistor Pocket radios, in various.

These are required for sale over counters at Aircraft bases, such as Canton Island, (U. S. A./British Territory undefined).

Payment would be by L/C through National City Bank of N. Y. U. S. A.

Please quote your lowest prices, as we have heavy aircraft freight and trans-shipment expenses.

Looking forward to your early reply,

We are, Yours truly,

J. F. Brooks & Co.,
S. Platt.
Per D. S. Spiller.

P. S. Should you have an Export Agent handling these matters, it would be appreciated if you would forward our request on to them, do not refer back to us.

Pls. mail 2 spec. sheets Royal 500.

Mr. Andrew Hegh
P. O. Box 339
Mt. Isa
Queensland, Australia.

August 7, 1957

Dear Mr. Hegh:

In response to your recent inquiry, we are pleased to send you the attached specification sheet which provides technical and operating features of our super Transoceanic.

You will note that its circuit uses 6 tubes, including a selenium rectifier, and that its circuit has a tuned radio frequency stage with a 3-gang condenser, so necessary for long distance reception. Details as to band coverage are contained in the attached specification sheet.

The suggested list price in the United States of the Transoceanic, less batteries, is $139.95. If you are in a position to import this set, we shall be glad to extend to you a courtesy price of $83.97 net plus $3.00 for the S15715 220 volt voltage adaptor and $4.95 for the battery pack Z985X, f.o.b. factory Chicago, including export packing. Our standard export terms are: payment cash-in-advance or through an irrevocable letter of credit in U. S. funds. We estimate that inland transportation, ocean freight, insurance, etc. from the factory to destination will cost approximately $38.50.

We are sorry we have no recent information available as to the customs' duties in Australia on American radios, but, no doubt, you will be able to get this information more accurately from your local customs' authorities.

Thanking you for writing to us and for your interest in our product, we are,

Very truly yours,
R. M. Carstens,
International Division.

RMC/ro
Attach.
Air Mail

Bruno:

Please give me the figure in the third paragraph. Thanks.

Mary Anne.

$38.50.

P. O. Box 339
Mt. Isa
Queensland
Australia

Dear Sir,

Would you mind sending me full particulars about your "Zenith" Trans-Oceanic portable short wave radio, on how much it would cost, if it could be imported into Australia, if so, about how much would the customs duty be. Also how many valves it has, what short wave bands it is on, and what broadcast bands it is on. Would it be from 550 to 1600 kilocycles? Also how long would it take to get here?

I would be very pleased if you would send me these details.

Yours faithfully,

Andrew Hegh.

December 10, 1957

Master G. Irvine
MacNiel House
Knox Grammar School
Wahroonga, N. S. W., Australia

Dear Sir:

Thank you for your recent letter expressing interest in our all-transistor pocket radio.

Enclosed is an illustrated specification sheet of our model Royal "500", which we can presently offer for export to Australia at our confidential courtesy price of $49.19, plus $2.00 for 4 Mercury batteries. Also available is our leather carrying case for this model at $1.95.

Our terms include payment in advance. All methods of payment must be made or drawn in U. S. dollars.

If we can be of further service, please let us know.

Very truly yours,

L. DeRobertis,
International Division.

LDR/ak

Air-Mail

Encl.

Master G. Irvine:
MacNiel House
Knox Grammar School
Wahroonga, N. S. W.
Australia.

Dear Sir:

I read recently, an add in a National Geographic about Radio's. And there is a ! ! ! ! Boy at school that has a Zenith small pocket size. Runs on batteries and transistors: Would you be able to send me the price in $ and if I wanted it how much would I have to pay for that and could you post it to me in Australia? For my father plans to go to America and has some $ saved up. The boy here offered to sell it to me for $65 it is 3 or 4 yrs. old and is not going so good now. I would be very obliged if you would forward me a Pamphlet of some description with the information in it.

Yours Sincerely,

Geoff Irvine.

April 28, 1958

Magnecord Australasia Pty. Ltd.
Kylo House
31 Macgnario Place
Sydney, Australia

Attn: Kay B. Teehey

Gentlemen:

Thank you very much for your letter of April 21.

In line with your request, we are enclosing a detailed descriptive folder for the Zenith Royal "1000" all-transistor standard and shortwave portable radio. An individual specification bulletin is also provided.

In lieu of local distribution in Australia, we will be happy to handle your order on a direct factory basis. Your net f. o. b. factory export cost is noted per attached pro-forma invoice. We have included in the pro-forma the optional accessories, such as the private listening earphone and carrying case.

Transportation costs, depending on the method you select, are extra. Estimated costs via parcel post and air freight are noted on the attached invoice.

We sincerely appreciate your interest and will look forward to receiving your confirmation covering Zenith's all-transistor Transoceanic portable radio.

Very truly yours,

N. D. Olsen, Jr.,
International Division.

NDO/ak
Air Mail
Attach.

INVOICE

ZENITH RADIO CORPORATION

6001 DICKENS AVENUE • BERKSHIRE 7-7500
CHICAGO 39, ILLINOIS

Ex pro-forma

SOLD TO
HAGHEDCOED AUSTRALESIA PTY. LTD.
KYLE HOUSE
31 MACQUARIE PLACE
SYDNEY, AUSTRALIA

SHIPPED TO
SAME

TERMS: AS FIXED BY CONTRACT OR PURCHASE ORDER—ALL SHIPMENTS F.O.B. FACTORY

SHIPPED VIA	DATE SHIPPED	YOUR ORDER NO.	OUR ORDER NO.	INVOICE DATE
PER ADVISED	PER SCHEDULE LTR.	4/21/58		4/20/58

QUANTITY	PART NO. OR MODEL	DESCRIPTION	PRICE	AMOUNT
1	ROYAL 1000	PORTABLE	$134.50	
1	713	BATTERY KIT	.86	
1	839-24	EARPHONE	2.15	
1		CARRYING CASE	4.50	
				$142.09
		*ESTIMATED PARCEL POST $7.50		
		*ESTIMATED AIR FREIGHT $53.30		
		EXCISE TAX EXEMPT #		
		CARTON OVERPACK		
		FOR EXPORT TO: AUSTRALIA		
		MARKS:		
		SAME AS SHIP TO		
		SAMPLE		
		#1		
		MADE IN USA		

ITEMS ORDERED BUT NOT SHIPPED HAVE BEEN BACK-ORDERED AND WILL BE SHIPPED AS SOON AS POSSIBLE.
CONSIGNEE: NOTE CAREFULLY CONDITION OF PACKAGES BEFORE RECEIPTING IN GOOD ORDER.

The merchandise hereon was delivered to the carrier in good condition. If any shortage or damage is discovered after receipt of delivery or loose, it is immediately to be reported to the carrier, who alone is responsible for loss or damage in transit. Claims must be made promptly. Zenith will assist you in every way possible, but cannot assume responsibility for shortages, loss or damage in transit. Zenith's liability ceases upon delivery of merchandise to the carrier. Zenith's warranties and limitations of liability are contained in the Limited Warranty and Limitation of Liability enclosed with each product.

10-61-58

ORDER HISTORY

SHIP TO: Magnecord Australasia Pty Ltd. ORDER NO: E8 Proforma
Kyle House
37 Macquarie Place
CHARGE TO: Sydney, Australia
Same

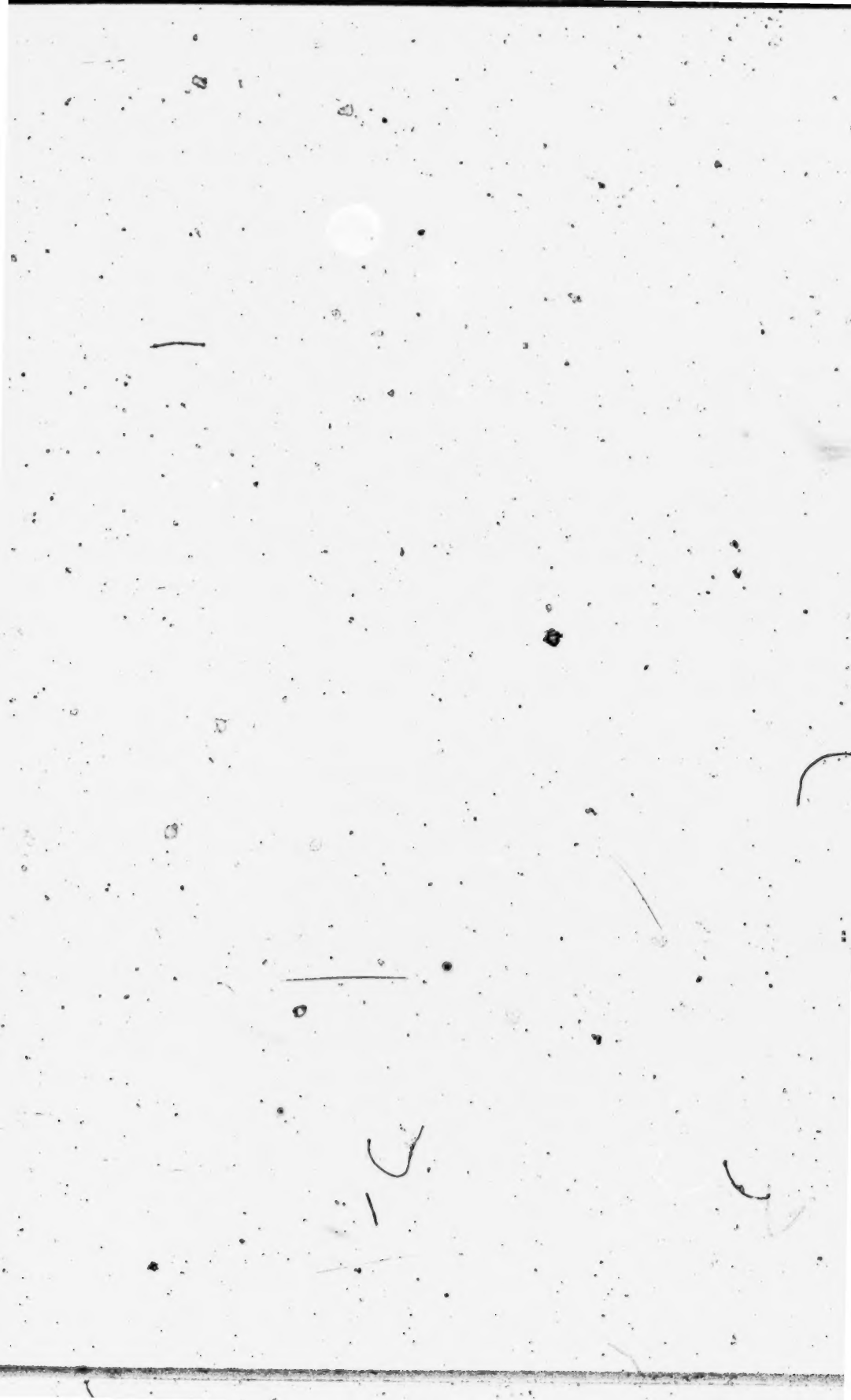
DATE: 4/25/58
CUST. ORDER NO: Ltr 4/21
SHIPPING DATE: Per schedule
ROUTE: Per advice *

TERMS: L/C ☒. C.I.A. ( ) N.C.R.O.I. ( ) ARMY/NAVY ( ) S.D./D.P. { } C.O.D. .

QUAN.	DESCRIPTION	UNIT PRICE	PROFORMA UNIT PRICE	INVOICE TOTAL
1	Royal 1000 Portable	134.58		
1	#13 Battery Set	86		
1	B39-24 Earphone	2.15		
1	Carrying Case	4.50		
				142.09
	* Estimated Parcel Post $7.50			
	* " Air Frt $53.30			

EXCISE TAX Exempt N
MARKS:
Same as ship't
Sample
3240-#1
Made in U.S.A.

FOR EXPORT TO: Australia
CASE PACKING
DOMESTIC PACKING
CARTON OVERPACK
COMBINE WITH:
INSURANCE:



December 10, 1958

Mr. Leslie P. R. Bean
Stromberg-Carlson
(Australasia) Proprietary, Ltd.
Box 3971, G. P. O., Sydney,
Australia

Dear Mr. Bean:

Mr. Clifford Hunt has referred to me your letter of December 3rd regarding your need for a couple of our TV sets.

We shall be very glad to accommodate you, but at this moment we are in the process of changing to a new line of television sets which will be announced to distributors next week. I would prefer to send you information on the new models, so that the samples you will receive from us will be the reflection of our latest designs. I expect to have price information and literature by the end of next week and based on that, we will send you a proforma invoice covering our new 21" set and one of our deluxe TV consoles, with the aid of which you can then apply for a corresponding import license. Rather than making special arrangements to ship these from one of our distributors on the Coast, I think it would be just as well to have the two sets supplied directly from Chicago.

I will communicate with you again as soon as I have information and literature on the new TV line.

With all good wishes.

Very truly yours,

E. Blonde.

J. A. Miguel, Jr./ff

Airmail

C 2359 W Frosted Walnut $218.27
C 2221 R. Maroon—133.97

(Letterhead of Stromberg-Carlson (Autralasia) Proprietary . Limited, Sydney, Australia.)

3rd December, 1958

Mr. Clifford J. Hunt,
Vice President,
Zenith Radio Corporation,
6001 Dickens Avenue,
Chicago 39, Illinois, U. S. A.

My dear Cliff,

I should esteem it a favour if you would be so kind as to let us have (and bill us) two of your T. V. reecivers, one being a low priced one (not a portable) and the other—one of your high-class ones. We would like to have complete receivers, cabineted etc., in order to get ideas as to the trim and finish for our future guidance.

I am wanting to let my engineers see class American receivers in these two categories.

Before you make any shipment would you be so kind as to advise me as to the cost of these, because I have to get from our Federal Government an import licence and I must do this before I place an order. Allan Freedman suggests that you might care to ship these from the West Coast by steamer from San Francisco or Los Angeles.

I trust that I am not intruding too much upon your generosity.

With kind regards,

Yours very sincerely,

Leslie P. R. Bean.

INVOICE

ZENITH RADIO CORPORATION

6001 DICKENS AVENUE • BERKSHIRE 7-7800
CHICAGO 39, ILLINOIS

Ex Proforma

SOLD TO
Mr. Leslie P. K. Bean
Stromberg-Carlson
(Australasia) Proprietary, Ltd.
Box 5971, G.P.O.
Sydney, Australia

SHIPPED TO
SAME

TERMS: AS FIXED BY CONTRACT OR PURCHASE ORDER—ALL SHIPMENTS F.O.B. FACTORY

SHIPPED VIA	DATE SHIPPED	YOUR ORDER NO.	OUR ORDER NO.	INVOICE DATE
				12/24/58

QUANTITY	PART NO. OR MODEL	DESCRIPTION	PRICE	AMOUNT
1	C2359W	Frosted Walnut 21-inch Console-HI-fi TV set	$218.27	$218.27
1	C2221R	Maroon 21-inch Table Model TV set	133.97	133.97
		TOTAL		$352.24
		FOB FACTORY, CHICAGO		

ZENITH RADIO CORPORATION
INTERNATIONAL DIVISION
6001 DICKENS AVENUE
CHICAGO 39, ILLINOIS

ITEMS ORDERED BUT NOT SHIPPED HAVE BEEN BACK-ORDERED AND WILL BE SHIPPED AS SOON AS POSSIBLE.

CONSIGNEE: NOTE CAREFULLY CONDITION OF PACKAGES BEFORE RECEIPTING IN GOOD ORDER.

The merchandise herein was delivered to the carrier in good condition. If any shortage or damages is discovered, either at time of delivery or later, it is understood upon [illegible] to file claim for redress against the carrier. No returns accepted unless specifically authorized. We hereby certify that these goods were produced in compliance with all applicable requirements of sections 6, 7 and 12 of the Fair Labor Standards Act as amended and all regulations and orders of the United States Department of Labor issued under section 14 thereof.

10041-24

December 24, 1958

Mr. Leslie P. R. Bean
Stromberg-Carlson
(Australasia) Proprietary, Ltd.
Box 3971, G. P. O.
Sydney, Australia

Dear Mr. Bean:

Supplementing Mr. Miguel's letter of December, 10, enclosed are specification sheets on our new TV models C 2359W and C2221R together with our proforma invoice giving the price information.

If these sets meet with your approval, please advise us and we will handle the shipment from our plant.

Best wishes for the Holidays.

Sincerely,

Mary Ann Sundt (Mrs.),
Secy. to Mr. Miguel.

MAS/m
Attach.
Airmail

March 2, 1959

Mr. Rodney Bailey
84 Fawcett Street
Mayfield
Newcastle, New South Wales
Australia

Dear Sir:

We acknowledge and thank you very kindly for your inquiry of February 22, and in response thereto, are pleased to enclose specification sheet on Zenith's Royal "1000/1000D."

Regrettably, the units are not available for distribution in Australia; however, we will be more than pleased to extend a direct factory quotation.

The Royal "1000" has a suggested retail selling price of $250.00, the Royal "1000D." $275.00. On a courtesy basis, the Royal "1000" is offered at $150,00, the Royal "1000D" at $165.00. These prices are quoted on an F. O. B. factory —Chicago basis, battery complement included.

You will please note from the attached specification sheet, that the Royal "1000D" differs only in that it contains a ninth waveband covering 150—400 KC, utilized in the United States as a CAA weather navigation band, in Europe as a long-waveband.

Regarding reception range—a Mr. R. N. Sneddon, 35 Reading Rd., Brighton, Sydney, Australia, purchased a Royal "1000" from us in November of 1958. He has expressed his pleasure with the receiver and, perhaps, he would not mind dropping you a line as to the receiver's performance.

Either unit can be released quite economically via parcel-post with total parcel-post, insurance, and packing esti-

mated at $7.60. Air freight is quite prohibitive as we estimate, on a 17 pound basis, $71.00 for air freight charges to Sydney.

Terms of payment are on a cash in advance basis in U. S. currency to cover the estimated forwarding charges.

We sincerely trust that the enclosed, as well as the foregoing, serves to answer your questions, in full, and we will look forward to being of further service.

Yours very truly,

H. L. Grimm,
International Division.

HLG:ca

Air Mail
enc.

84 Fawcett Street,
Mayfield, Newcastle,
N. S. W., Australia,

February 22nd, 1959.

Dear Sirs:

I am greatly interested in the all transistor Trans-Oceanic portable radio.

Could you send me any details as to the metre bands covered, antenna required and reception range.

Also, could you tell me if these receivers are available here in Australia.

Kindest regards.

Yours sincerely,

Rodney Bailey

March 4, 1959.

Mr. S. A. Hossain
Office of the High Commissioner for
Pakistan in Australia and New Zealand
115 Pitt Street, G. P. O. Box 5256
Sydney, Australia

Dear Sir:

We acknowledge and thank you very kindly for your correspondence of February 24, your reference SW/Z/I.

We are pleased to enclose our latest radio line brochure, accompanied by a sepcification sheet on Zenith's Royal "1000/1000D." The latter model differs only in that it contains a ninth waveband covering 150-400 KC, utilized in Europe as a long-waveband, in the United States as a CAA weather navigation band.

The foregoing are accompanied by our confidential courtesy export price list SPRA-110, applicable to members of the diplomatic corps.

If you will kindly advise, after reviewing the enclosed, the exact models in which you are interested, we will be more than pleased to extend the total estimated CIF quotation for your remittance in line with our terms of payment of cash in advance.

May we take this opportunity to thank you very kindly for the interest which you have shown in Zenith's products.

Yours very truly,

H. L. Grimm,
International Division

HLG:ca
Airmail
enc.

Office of the High Commissioner for Pakistan
in Australia and New Zealand, 115 Pitt Street,
G. P. O. Box 5256, Sydney, Australia.

24.2.59

Zenith
Radio Corporation of America,
Export Manager,
Diplomatic Sales Division,
Chicago,
Illinois,
U. S. A.
Ref: SW/Z/I

re: Importation of shortwave receiver

Dear Sir,

We are interested in your shortwave wireless receivers capable of receiving worlds existing shortwave station with maximum band spread. We are also interested in your portable contemporary model shortwave receiver.

As you know we are offered courtesy diplomatic discount over the gross export prices by the manufacturers and also exempted from import duty and sales tax.

It will be much appreciated if you kindly send catalogue and diplomatic export prices of your short wave receivers, including the portable models, by airmail.

Thanking you,

Very truly yours,

S. A. Hossain.

April 1, 1959

Mr. J. A. Evans Jr.
Myrrhee
Via Wangaratta
Victoria, Australia

Dear Mr. Evans:

We acknowledge and thank you very kindly for your secondary correspondence relative to your eventual desire to purchase the Zenith Royal "1000D."

We shall look forward to receiving your remittance as indicated in the amount of $165.00 plus $7.75 to cover the required insurance, parcel post, packing and handling.

We regret to advise that we do not manufacture the companion record player for utilization with the Transoceanic. All of our record playing units utilize their own amplification system.

We will look forward to being of further service.

Yours very truly,

H. L. Grimm,
International Division

HLG:ca

Air-Mail

J. A. Evans (Jur.)
Myrrhee,
Via Wangaratta,
Victoria,
Australia.

Dear Sir,

I very much appreciated the offer of the Zenith Radios (Oct. 30, 1958).

I am interested in the Royal "'1000D" & would you have a very small record player to plug into the wireless.

I have not made up what cost the customs will be yet (import duty) & shillings in the £.

As soon as I receive the next letter I will send the money as quoted $165.00 on the Royal "1000D" & plug in record if suitable.

Yours truly,
J. A. Evans (Jur.)

October 30, 1958.

Mr. J. A. Evans Jr.
Myrrhee
Via Wangaratta
Victoria, Australia

Dear Mr. Evans:

We acknowledge and thank you very kindly for your recent inquiry, and in response thereto are pleased to enclose specification sheet on Zenith's Royal "1000"/"1000D".

Further we are enclosing our line brochure as you have not specifically indicated which model you are interested in.

The Royal "1000D" differs from the regular Royal "1000" in that it contains a ninth waveband of 150 to 400 KC—utilized in The United States as a CAA weather navi-

gation band, in Europe as a long wave band. The normal suggested retail selling price is $250.00 on the Royal "1000," and $275.00 on the Royal "1000D." In lieu of firm representation in your immediate locale, we will be more than pleased to extend a confidential courtesy price of $150.00 on the Royal "1000"—$165.00 on the Royal "1000D." These prices are quoted on a FOB factory—Chicago basis, battery complement included.

Either set can be released via insured parcel post with total forwarding and handling charges running $7.00. Export case packing, for parcel post release is an additional $.75.

Our terms of payment are on a cash-in-advance basis in US currency or, where applicable pounds sterling at the banks discounted rate of approximately $2.30 per pound.

We sincerely trust that the enclosed as well as the foregoing answers your questions in full, and if we may be of any further service at a later date, please do not hesitate to write.

Yours very truly,

H. L. Grimm,
International Division.

HLG:cl
(Encl.)

J. A. Evans (Jnr)
Myrrhee
Via Wangaratta
Victoria
Australia

Dear Sir,

I am very interested in your Zenith Radio which I saw advertised. I have been looking for a decent radio & this is the only one that suited most.

Would you kindly send at your earliest convenience information on the Zenith Radio.

Yours sincerely,
John Evans (Jur.)

May 6, 1959.

Mr. J. M. Bennett
Xavier College
Barkers Road
Kew E.4, Melbourne, Australia

Dear Sir:

Thank you for your letter, received by us today, requesting information on our Royal "500" transistor radio.

We do not as yet have representation in Australia, for our products, but we trust that sometime in the future, we may be able to do so.

The price of the Royal "500" is $49.16, four Z-9 batteries $1.52, parcel post, insurance and handling approximately $2.50—total $53.18.

Upon receipt of your order and covering remittance, this receiver can be shipped to you immediately.

Yours very truly,
J. Wilson Cook,
International Division.

JWC/ak
Air Mail

Xavier College
Barkers Road,
Kew E. W.
Melbourne,
Australia.

Dear Sir,

I read an advertisement regarding your "Royal 500" model pocket radio.

I can not find any agent for your radios in Melbourne or Australia so I was wondering if you would please forward me some information as to how I could obtain one of their radios from you and it's approximate cost please.

I realize that Custom Duty is very severe, but I am seriously considering sending to you for one of these radios.

My address is:
Xavier College, Barkers Road, Kew E. W., Melbourne, Australia.

Thanking you,

Yours sincerely,
J. M. Brennett.

June 22, 1959.

Mr. R. J. Oldfield,
"Gurrawarra"
Bourke,
New South Wales, Australia.

Dear Sir:

Thank you for your letter of May 31, 1959, inquiring about our radios.

We have great pleasure in enclosing specification sheets of our Royal "760" and Royal "1000" models, and you will note that it contains full details of their operation.

Regarding your inquiry on modification to the Royal

"1000" to operate as does the Navigator, i. e., directional, this would be a very costly business and is certainly not recommended.

Mr. F. J. Brandt, Box 4486, P. P. O., Sydney, New South Wales, Australia, has manager to get some of our sets into Australia and, therefore, we suggest that you contact him for the purchase of one of these sets.

We thank you for your interest.

Yours very truly,
J. Wilson Cook,
International Division.

JWC/ag
Airmail
Enclosures
BCC: Mr. F. J. Brandt,
Sydney, New South Wales,
Australia.

"Gurrawarra,"
Bourke,
New South Wales,
Australia.

2nd June, 1959.

The Sales Executive,
Zenith Radio Corporation,
Chicago 39,
Illinois, U. S. A.

Dear Sir:

I have been reading lately your advertisement in "Flying", Saturday Evening Post, and the National Geographic, concerning your radios. As I am an operator of light aircraft, the flight test of your "Navigator" model in "Flying" was very impressive.

Of particular interest to me was your Royal 1000 long range short wave set, as I live in an area plagued by

poor daytime reception in the 500 to 1500 kilocycle band, because of the distance from stations. Often during the summer months, this frequency band is unuseable owing to thunderstorm activity.

I would like full details of these two sets, ("Navigator" and Royal 1000), including frequency range, battery life and type, and price.

Could the Royal 1000 be modified to give the same directional sensitivity as the "Navigator"? If so, what would be the extra cost involved?

Any information relating to your other radios would be received with interest.

Yours faithfully,
R. J. Oldfield.

(note)

letter mentioning Brandt

P.S. A replica of this letter was inadvertently sent to you last week by surface mail.

"Gurrawarra",
Bourke,
21st May, 1959.
Australia.

The Sales Executive,
Zenith Radio Corporation,
Chicago 39,
Illinois, U. S. A.

Dear Sir

I have been reading lately your advertisement in "Flying" "Saturday Evening Post" and "The National Geographic" concerning your radios. As I am an operator of a light aircraft the flight test of your "Navigator" model in "Flying" was very impressive.

Of particular interest to me was your Royal 1000 long range Short Wave set, as I live in an area plagued by poor daytime reception in the 500 to 1500 KC band because of the distance from stations. Often during the summer months this frequency band is unuseable owing to thundrer-storm activity.

I would like full details of these two sets, (Navigator and Royal 1000), including frequency range, battery life and type and price.

Could the Royal 1000 be modified to give the same directional sensitivity as the Navigator? If so, what would be the extra cost involved?

Any information relating to your other radios would be received with interest.

Yours faithfully,
R. J. Oldfield.

(note)

Air Mail letter answered.

December 24, 1959.

Mr. W. C. Hawkins,
Purchasing Director,
Stromberg-Carlson (Australasia),
Proprietary Limited,
Box 3971, G. P. O.
Sydney, Australia.

Dear Mr. Hawkins:

We thank you for your letter of December 16, in which you expressed interest in our 17-inch television receivers with conventional and also with remote control tuning.

We believe, that our model E1812L with conventional tuning and our model E2010C with remote control tuning will meet with your approval and for your convenience

we are handing you enclosed illustrated and descriptive specification sheets for these 2 models.

Please note that the export price for model E1812L, net F. O. B. factory in Chicago, is $127.97—while the price for model E2010C is $155.97, net F. O. B. factory in Chicago. These prices include domestic packing, which we have found fully adequate for air freight shipments. However, if you wish to have these sets shipped via ocean freight, we would strongly recommend export case packing for which we will apply an additional charge of $2.50 per set.

The weight of model E1812L in domestic packing is 57 pounds and in export packing, approximately, 95 pounds—while the weight of model E2010C in domestic packing is 65 pounds and in export packing approximately, 105 pounds.

Please feel free to request additional information if such should be needed and looking forward to your further news, we remain, with our very best wishes for a pleasant holiday season,

Yours very truly,

Walter R. Peirels,
Assistant Sales Manager,
International Division.

WRP/ag
Airmail
2153.6
Enclosure

(Letterhead of Stromberg-Carlson (Australasia) Proprietary Limited, Sydney, Australia.)

16th December, 1959

Walter R. Peirels,
Assistant Sales Manager,
International Division,
Zenith Radio Corporation,
6001 Dickens Avenue, Chicago 39, U. S. A.

Dear Sir:

We are anxious to obtain samples of your 17" portable television receivers. We would issue an order for one of the Standard type and one with the Remote Control feature.

We suggest that you supply one "Jamaica Model D1812 L" and one "Bahama Model D1814P" providing that one of these can be supplied with a Remote Control unit.

When replying please let us know the unit price and the packed weight so that we can arrange for an Import Licence.

Thanking you for an early Airmail reply,

Yours faithfully,

Stromberg-Carlson (Australasia) Pty. Ltd.,
W. C. Hawkins,
Purchasing Director.

Pls. Mail spec. sheet E1812 and E2010.

February 29, 1960

Lt. Col. Albert Jacoby
MGO Branch
Army Headquarters
Albert Parks Barracks
Melbourne, Australia

Dear Sir:

We received your letter of February 10, 1960 with your request for a 1960 television service manual.

Please find enclosed the requested material, which we hope will be of service to you.

Yours very truly,
L. T. Vigil (Mrs.),
International Division.

LTV/cl
Air-Mail

MGO Branch,
Army Headquarters,
Albert Park Barracks,
Melbourne, Australia.

COMMONWEALTH OF AUSTRALIA
Department of the Army
Melbourne, SCI.

Zenith Radio Corporation,
6001 Dickens Ave.,
Chicago 39, Ill.

Dear Sirs:

A number of friends returning to Australia from USA are bringing Zenith TV sets. These require conversion to Australian TV standards and of course the service manual is essential. In particular the following model has arrived,

and I would be very grateful if you would forward a copy of the service manual at your earliest convenience.

17" Portable, Model E 1811C—16D25 Chassis.

Over the last three years, I have converted some 30 to 40 Zenith TV sets to Australian standards, and you have been kind enough to forward manuals on request. Would it therefore be possible for you to include me on your mailing list for future models in order to obviate the necessity for special requests for service information.

I will be pleased to forward a check to cover any costs involved.

Thanking you for your co-operation,

I remain,

Yours Truly,

Albert Jacoby.

Lt.-Col. Albert Jacoby,
MGO Branch,
Army Headquarters,
Albert Park Barracks,
Melbourne, Australia.

March 8, 1960

ROT/LB Henk Cassa
(Official No. R/35910)
Moran Division; Class L 2 R
Flinders Naval Base (R. A. N.)
Via Melbourne
Victoria, Australia

Dear Sir:

We thank you for your letter dated February 29, 1960, inquiring about our Royal "1000" Zenith Transoceanic receiver.

It gives us great pleasure to enclose the specification sheet of our Royal "1000/1000D" models, the prices of which are as follows:

Royal "1000" is priced including case packing and batteries at $150.75
That of the Royal "1000D" $165.75

Parcel Post charges and insurance on either model amounts to $7.95.

Regarding your customs requirements, etc., we would not know these details in this country and you will have to ask the Customs Officials of Australia yourself.

Upon receipt of your remittance in U. S. funds, either of these models can be despatched to you without delay.

In the meantime, we remain,

Yours very truly,
J. Wilson Cook,
International Division.

JWC:sn

Airmail

Enclosure

Flinders Naval Base
Victoria, Australia
29-2-1960

Dear Sir(s):

I am a recruit in the Royal Australian Navy and I am doing a Radio Course. I chose this course because I am very interested in Radio Work. I have a radio of my own it is a "Sharp 2-band 10 transistors radio." What I am most interested in is getting shortwave stations which you can get on the "Sharp" but not the whole world.

So therefore when I read the advertisement about the Zenith in the World Radio Handbook I decided to write to you.

Would you be so kind as to give me some information on the Zenith.

What would be the dimensions of the Zenith and what would be the price of it for sending it here if I wanted to buy it.

If I wanted to buy it would it be possible to send it down here or do I have to have an import license, and how would I have to go about sending the money down. If it would not be possible to send the Zenith down could you tell me whether you have any branches here in Melbourne where you could get a Zenith.

There dear sir(s) are some of the questions I would like to know the answers to, and I would be very glad if you could give me some information on the Zenith.

I am looking forward to your answer, and Thanking you very much for your information.

I am yours

truly,

H. Cassa.

March 8, 1960

Mr. Leslie Varga
67 Pentral Street
North Sydney, Australia

Dear Sir:

Thank you for your letter dated March 2, 1960, regarding our Royal "1000" all-transistor Transoceanic receiver.

The price of this receiver is as follows:

1. Royal "1000" including batteries and Case Packing	$150.75
Estimated Parcel Post and Insurance Charges	7.95
Total	$158.70

Upon receipt of your remittance in the above amount this receiver can be dispatched to you without delay.

Customs duties and other charges, you will of course have to find out from your own Customs Department on this question.

In the meantime, we remain,

Yours very truly,

J. Wilson Cook,
International Division.

JWC:an
Airmail
Enclosure

Zenith Radio Corporation
Chicago 39, Illinois,
U. S. A.

North Sydney, 2, March '60

Dear Sir!

I read your advertisement in The American Geographic Magazine "on Zenith" all-transistor, Trans-Oceanic standard short wave radio operating in 8 wave band.

Since that set is not available here in Australia, please be you so kind and forward me if possible, technical details, ie (circuit) of that radio, and its price, and whether would you be able to provide me one if I'll send you its price in advance, if not please let me know the address of a firm, being able to send me one.

Sincerely yours,
Leslie Varga,
67 Pentral Street,
North Sydney, Australia.

Mr. G. Barrett
17 Curry Street
Merewether, Newcastle
New South Wales, Australia

March 22, 1960

Dear Sir:

We wish to acknowledge and thank you very kindly for your recent inquiry.

As the Royal "250" has been superseded with our Royal "100" we are pleased to provide you with our latest radio line brochure.

In view of your interest in the smaller type units, we will be pleased to extend a confidential courtesy export price of $30.28 on the Royal "100." $36.51 on the Royal "275." These prices are quoted on a F.O.B. factory—Chicago basis, battery complement included.

Either unit can be released quite economically via insured parcel post with total estimated parcel postage, insurance packing and handling running in the neighborhood of $1.50.

Our terms of payment are on a cash-in-advance basis in U. S. currency to include the necessary forwarding charges.

We wish to take this opportunity to thank you very kindly for your various comments relative to Zenith's products and to further extend our appreciation for your continued interest in same.

We trust that the enclosed as well as the foregoing serves to answer your questions in full and we will look forward to being of further service at a later date.

Yours very truly,

H. L. Grimm,
International Division.

HLG:sn
Airmail
Enclosure

17 Curry St.
Merewether
Newcastle
New South Wales
Australia

Dear Sir,

I suppose you would find it most unusual to receive a request from so far away, but I am interested in a small transistor radio. The models I am interested in are your Americana Royal 250 priced at $39.95 or the Statesman Royal 275 priced at $49.95. I saw the advertisement for these models in a Saturday Evening Post dated August 4th 1959 and I liked them at first sight.

The Americana Royal at $39.95 would be the equivalent of about £18 out here, whereas an equivalent model of Australian or Japanese manufacture would cost about £30, a big difference in price. Because of more advancement in Electronics I know which I would rather have, yours, regardless of price.

I first came across your make of Radio when an uncle of mine, a seaman, brought one back with him from one of his journeys. It was a Mantel Model black in colour with gold lettering and he purchased it in Houston, Texas about 10 years ago. I will always remember this Radio as it had a beautiful tone, and, to this day, it has not given one bit of trouble, not even value.

Unfortunately my uncle, who lives in Melbourne, decided to modernise, and invested in a Television Set and to do so decided, very reluctantly, to sell the radio as part payment. I was down there on holiday early February and he still regrets selling it, as a matter of fact I saw the agent who traded the radio in and he said to his knowledge, it had not given any trouble at all to the people whom he had resold it to.

This testimony alone, I think, is a grand advertisement for your product and I am hoping to hear from you very soon with particulars of, in particular your Americana Royal 250 in which I am very interested, so I will close now.

I Remain

Yours Faithfully,
Mr. G. Barrett.

April 22, 1960

Mr. I. R. Chan
63 Metung Street
Balwyn, E. 8, Melbourne, Victoria
Australia

Dear Mr. Chan:

We acknowledge and thank you very kindly for your inquiry of April 19, and in response thereto, we are pleased to provide you with individual specification sheet on Zenith's Royal "1000"/"1000D."

The Royal "1000D" contains a ninth wave band, covering 150-400 KC, utilised in the United States as a weather navigation band, in Europe as a long wave band,—this represents the prime difference between the two units.

In lieu of active representation in Australia, we will be more then pleased to extend a confidential courtesy export price of $150.00 on the Royal "1000", $165.00 on the Royal "1000D." These prices are quoted on a FOB factory Chicago basis, battery complement included.

Either set can be released quite economically via parcel post with total parcel post, insurance, packing and handling estimated at $7.80. Via air freight, we estimate charges $48.00.

Our terms of payment are on a cash-in-advance basis in U. S. currency to include the estimated forwarding charges.

We take this opportunity to thank you very kindly for the interest which you have shown in Zenith's products, and trust that we will have the pleasure of being of further service.

Yours very truly,

H. L. Grimm
International Division

HLG/cl
Air-Mail
(Encl.)

63 Metung Street,
Balwyn, E. 8.,
Melbourne, Victoria.
Australia.

Tuesday, 19 April. 1960.

Dear Sir,

I have noted with great interest your advertisement for the "Zenith all-transistor Trans-Oceanic" radio receiver in the 1960 edition of the World Radio Handbook. As no receiver of this type and quality cannot be obtained here in Australia, I would be most grateful if you could furnish me with details of its performance; range of frequencies; price; etc., and how, if possible, I may obtain one of these receivers.

As I am most interested in Shortwave Reception and have taken up Shortwave Listening as a hobby, I require a high performance, low running cost receiver. The "Zenith Trans-Oceanic" seems the most suitable and convenient receiver to purchase, as it fulfills all these requirements.

It would be most appreciated if you could supply me with the above information.

Yours Sincerely,

Ian R. Chan

April 22 1960

Mr. G. A. Rawson
15 First Avenue
Willoughby, N.S.W., Australia

Dear Mr. Rawson:

We acknowledge and thank you very kindly for yours of April 15, and in response thereto, we are pleased to provide you with our latest radio line brochure accompanied by individual specification sheet on Zenith's Royal "1000"/ "1000D."

Kindly note that the prime difference between the Royal "1000" and Royal "1000D" is that the latter model contains a ninth wave band, covering 150-400 KC, utilized in the United States as a weather navigation band, in Europe as a long wave band.

All of our units are designed for reception on the standard broadcast band, covering 540 to 1600 KC which is commonly used throughout the world. This is many times referred to as the medium wave service.

In addition to reception on the standard or medium wave band, our model Royal "780" is designed for reception on the medium wave band as well as the afore mentioned band incorporated in the Royal "1000D."

Models Royal "1000" and "1000D" in the transistor, battery operated type units are also designed for shortwave reception. In addition to these units the B600 and B600L are designed for shortwave and standard broadcast reception on the bands as indicated.

For comparative reasons specification sheets are enclosed on the B600 and B600L. Please note that these units are designed for operation on AC, DC or the Zenith Z985X unit. They operate on any 25 to 60 cycle, 85-130 volt AC,

DC power outlet or with utilization of a ballast adapter, operation is possible on 170-250 volt AC, DC power supply.

These two units are tube type radios and differ only in the cabinet finish.

We are pleased to provide you with our confidential courtesy export price list SPRA-112 and upon receiving indication from yourself as to the exact model or models in which you are definitely interested, we will be pleased to extend the total estimated CIF quotation.

Kindly note that our terms of payment are on a cash-in-advance basis in U. S. Currency or through suitable letter of credit in U. S. funds.

We take this opportunity to thank you kindly for the interest shown in Zenith's products, and trust that we will have the pleasure of being of further service at a later date.

Yours very truly,

H. L. Grimm
International Division

HLG/cl
Air-Mail
(Encl.)

15 First Avenne,
Willoughby,
N. S. W.,
Australia.

15th April, 1960.

Zenith Radio Corporation,
International Division,
6001 West Dickens,
Chicago 39,
Illinois,
U. S. A.

Dear Sirs,

Having seen your advertisement regarding Trans-Oceanic portable transistor receivers in the latest edition of the "WRH", would you be good enough to send me some more particulars regarding these models—in regard to prices, whether they would be suitable for Australian conditions, and if so are they available here?

Yours faithfully,

Gary Rawson

June 10, 1960.

Mr. L. H. Vidler
Flat 2, Block 2
Allawah Flats
Bradder, A. C. T.
Australia

Dear Mr. Vidler:

We acknowledge and thank you very kindly for your inquiry of June 3, and in response thereto, we are pleased to provide you with our latest radio line brochure.

We believe that the set which you are referring to is the

Zenith Royal "500E" which has dimensions almost identical to those which you have set forth.

In lieu of representation in Australia, we are pleased to provide you with the following quotations:

	FOB Factory W/Batteries	Estimated Parcel Post, Packing & Insurance
R100	$30.28	$1.50
R275	36.51	1.50
R500	51.20	1.50
R675	35.09	1.90
R710	40.90	2.80
R755	53.34	2.80
R780	65.30	2.80
R1000	150.00	7.50
R1000D	165.00	7.50

Kindly note that our terms of payment are on a cash-in-advance basis in U. S. currency to include the estimated forwarding charges.

We wish to take this opportunity to thank you very kindly for the interest which you have shown in Zenith's products, and we trust that we will have the pleasure of being of further service.

Yours very truly,

H. L. Grimm,
International Division.

HLG/cl
Air-Mail
(Encl.)

(Letterhead of Commonwealth Scientific and Industrial Research Organization, Canberra, A. C. T., Australia.)

Private address:
L. H. Vidler,
Flat 2, Block 2,
Allawah Flats,
Braddon, A. C. T.
Australia.

3rd June, 1960.

The Manager,
International Department,
Zenith Radio Corp.
Chicago, Illinois.
U. S. A.

Dear Sir,

I wish to purchase a "Zenith Transistor Radio". I believe you manufacture a set that measures approximately 6" × 3½" × 1½".

Accordingly I would be pleased if you would forward me a catalogue and price list of your products and the postages applicable to posting to Australia, in particular, the radio mentioned above.

Yours faithfully,

(L. H. Vidler).

October 4, 1960.

Mr. R. J. Tremayne
c/o Marine Board of Hobart
Franklin Wharf
Hobart, Tasmania, Australia

Dear Mr. Tremayne:

Many thanks for your letter of September 29, wherein you are requesting full particulars covering our Transoceanic shortwave portable radios. In this respect we are pleased to attach our specification sheets on the Zenith Transoceanic model Royal "1000" (and 1000D); model B600 Transoceanic (tube type), and also our multiple band radios the Navigator Royal "780" (AM/FM), the new FM/AM portable radio, the Royal "2000." The suggested retail prices on these instruments here in the United States, F. O. B. factory, are as follows:

Royal "1000" (AM/SW	$250.00 ea.
Royal "1000D" (AM/LW/SW)	275.00 "
B600	139.95 "
Royal "780Y" (AM/LW)	99.95 "
Royal "2000" (FM/AM)	189.95 "

The above prices are suggested list prices and do not include such items as batteries, earphones, carrying cases, taxes, etc. We trust this answers your inquiry. If we can be of further service, please do not hesitate to write. Thank you.

Sincerely yours,

W. P. Semonoff,
International Division.

WPS/cl
Air-Mail
(Encl.)

R. J. Tremayne,
c/o Marine Board of Hobart,
Franklin Wharf,
Hobart, Tasmania.

29th September 1960.

The Zenith Radio Corporation,
Chicago 39,
Illinois, U. S. A.

Dear Sirs,

It would be appreciated if you could forward me particulars of the Zenith Trans-Oceanic all band transistor Portable Radio, indicating if possible the price at which the set sells in the U. S. A.

Thanking you,

Yours faithfully,

R. J. Tremayne.

October 17, 1960.

Mr. E. J. Smith
32 Hastings Rd.
Hawthorn East, E. 3,
Victoria, Australia

Dear Mr. Smith:

Many thanks for your letter of October 10, requesting full particulars on our fine Transoceanic model Royal "1000D" shortwave portable radio. In this respect, we are pleased to attach our specification sheet and folder which offers the complete information that you desire. You will notice that model Royal "1000D" is the nine band radio, the extra band operating on longwave of 150 to 400 KC. The model Royal "1000" does not incorporate this extra longwave band.

We have recently appointed a new distributor for your country. We suggest that you contact them for prices and further information. They are located at:

Montrose (Australia) Pty. Ltd.
22 York Street
Sydney, Australia

Once again, thank you kindly for your inquiry. If we can be of further service, please do not hesitate to write.

Sincerely yours,

W. P. Semonoff,
International Division.

WPS/ch
Air-Mail
cc: Montrose, (Australia) Pty. Ltd.

32 Hastings Rd.,
Hawthorne East. E.3
Victoria,
Australia.

10th Oct. 1960.

The Manager,
Zenith Radio Corp.
6001 W. Dickens Ave.,
Chicago 39,
Illinois, U. S. A.

Dear Sir,

Would you kindly forward to me at the above address all the information you have on your Zenith Trans Ocean 9 Band All Transistor Portable.

Thanking you in anticipation.

Yours faithfully,

E. J. Smith.

November 29, 1960.

Mr. P. J. Lawrence
The Rectory
2 Rowland Street
Maylands
Western Australia

Dear Mr. Lawrence:

Many thanks for your lettergram wherein you are requesting information on Zenith Transoceanic portable radios. In this respect, we are pleased to enclose our specification sheet covering the new Royal "1000" Transoceanic all-transistor portable radio; and also the tube type model B600 Transoceanic portable radio.

If you will kindly let us know exactly which model you desire to purchase, we shall be glad to quote you our confidential courtesy export prices. Our terms of payment are cash-in-advance through an authorized bank check, or irrevocable letter of credit in our name.

We shall look forward to receiving your further comments. Thank you.

Sincerely yours,

W. P. Semonoff,
International Division.

WPS/cl

Air-Mail

The Rectory
2 Rowland St
Maylands
Western Australia

Zenith Radio:

Dear Sir,

I saw your advertisement for a short wave wireless in the National Geographic Magazine (1953) could you please send me illustrated literature on your Zenith, seven band Super Trans-Oceanic, and other sets were short wave is the main feature with a hand spreader or a vernier logging device

Yours Sincerely

P. J. Lawrence.

December 20, 1960

Mr. Emmanuel Cominos
245 Margaret Street
Toowoomba
Queensland, Australia

Dear Mr. Cominos

Many thanks for your recent letter requesting information on Zenith Royal "1000D" Transoceanic portable radios. In this respect, we are pleased to enclose our specification sheet which gives the full details of this magnificent radio receiver.

We are pleased to quote you our courtesy export price of $164.00 each, FOB Chicago. Our terms of payment are cash-in-advance in suitable U. S. funds. If you will kindly let us know if you are still interested in purchasing this

radio, we shall be glad to quote you the estimated CIF landed cost. At the time of answering, kindly indicate whether you desire air or ocean shipping. Thank you.

Sincerely yours,

W. P. Semonoff
International Division

WPS/cl

Air-Mail

Emmanuel Cominos
245 Margaret street,
Toowoomba.
Queensland
Australia.

14th December 1960

Zenith Radio Corporation
Chicago 39
Illinois
U. S. A.

Dear Sir,

In the December edition of the National Geographic magazine, I was attracted by your advertisement for the Trans Oceanic all transistor portable radio.

Since November, import restrictions in Australia have been raised and if it is at all possible, I would be much obliged if you could send me a prospectus on this model and also the total cost of purchase in Australian currency.

Hoping that this request will come to some avail,

Yours sincerely

E. Cominos

May 8, 1962

Rayford's Home Electrics Pty. Ltd.
281 Hunter Street
Newcastle, N.S.W., Australia
Attention: Mr. R. F. Mason, Manager

Gentlemen:

It was our pleasure to receive your letter of May 2 inquiring about the purchase of a Zenith Royal 1000 transistor radio.

Since we do not have any representation in Australia, we usually refer all inquiries to our distributor in Hong Kong for handling and if you will contact them I am sure they will quote you an attractive price. Their address is:

Scientific Service Company, Ltd.
447-8 Alexandra House
P. O. Box 923
Hong Kong

We enclose some line brochures covering our radio, television and phonograph line which might prove of interest to you.

Once again, we wish to thank you very kindly for your interest in our products.

Yours very truly,

H. R. Hart
International Division

HRH/dc
Airmail
Encl.

(Letterhead of Rayford's Home Electrics Pty. Ltd.,
Newcastle, N.S.W., Australia.)

2nd May, 1962.

The Manager,
Zenith Radio Corporation,
Chicago 39,
Illinois. U. S. A.

Dear Sir,

We have had an enquiry regarding a Zenith Royal 1000 transistor radio, and would appreciate your reply as to our method of purchase and actual price etc. If this model is no longer available, please advise as to current design.

You might if at all possible, send me details, pamphlets etc. on your range of tape recorders, as we are the largest distributor (retail wise) in this particular district.

Thanking you in anticipation of your prompt reply.

Yours faithfully,

Rayford's Home Electrics Pty. Ltd.
R. F. Mason.
Manager.

November 20, 1962

Mr. P. G. O'Neil
309 Mill Point Road
South Perth
Western Australia

Dear Mr. O'Neil:

In answer to your letter of November 15th, Zenith does not have any representation in Australia, and we refer you to our Hong Kong distributor for price and delivery information of our Zenith radios.

The address of our Hong Kong distributor is:

Scientific Service Company, Ltd.
447-8 Alexandra House
P. O. Box 923
Hong Kong

Since Scientific Service maintains an In Bond warehouse, they can offer you prices comparable to what you might expect if we were importing sets into Australia.

Please let us know if we can be of further assistance to you.

Yours very truly,

H. R. Hart
International Division

HRH/jm

airmail

P.G.O'Neil
309 Mill Point Road
South Perth
Western Australia

15th November 1962

Zenith Radio Corp.
Chicago 39
Illinois . . . . U. S. A.

Dear Sirs

Please forward Full Particulars of Transistor Portable Radios including the 9 Wave Band Model as advertised in "Post International", also advise if these models are available in Australia.

And Oblige

Yours Faithfully

(Mr. P.G.O'Neil)

January 3, 1963

Greg Gersekoski
7 Radnor Street
Indooropilly, Brisbane,
Queensland, Australia

Dear Mr. Gersekoski:

In answer to your letter of December 18 it is our pleasure to enclose descriptive material on all of our stereophonic record players.

After you have looked over the features of each and everyone of our sets please make your selection and let us know. We will be most pleased to quote you the total C. I. F. Brisbane charges for the model of your choice.

Thank you very kindly.

Yours very truly,

H. R. Hart
International Division.

HRH/dc

Airmail

Encl.

Tel. 78-2778

December 18, 1962

7 Radnor Street,
Indooroopilly, Brisbane,
Queensland, Australia.

Zenith Sales Corporation,
6001 Dickens Avenue,
Chicago 39. Illinois.
U. S. A.

Dear Sir,

On December 24, 1960, I wrote to you, Zenith International, in connection with the purchase of your Royal "50" Pocket Transistor Radio. A friend of ours who was, at the time in the United States, carried the set with him to Australia, and I am most satisfied at its unfailing performance, as well as its smart appearance and wonderful durability.

I am writing you now, however, in connection with the purchase of a 4-speed Stereophonic Record Player. I am not sure whether Zenith manufacture Phonographs or not, but would appreciate it greatly if you'd be as good as to forward Via Air, at your earliest convenience, a small detailed catalog, listing your complete 1963 range of portable Phonographs, together with the respective prices of each set illustrated.

Do you have any recognised Export Firms in the Chicago area who would be able to send the set of our choice to Brisbane? Unfortunately, we have no "friend" this time who would be able to bring the set back with him, and therefore would like the set sent by "surface mail" either through one of your Export Firms—or directly from the Factory itself.

We have checked with the Australian Customs and they assured us an import licence would not be required in this

case, but that a small amount of duty would be applicable upon arrival.

Also, could a 50 cycle adaptor be shipped with the designated set, in order to compensate for the difference in cycles? If so, how much would such an adaptor cost—or would it be free of charge if purchased with the Phonograph?

And one other thing, do any of your "portable" sets include a radio or are they all manufactured without radios? As I am most anxious to procure a set just as soon as possible, an early reply in this matter would certainly be appreciated. Thanking you, and hoping to be favoured with an early reply,

I remain,

Very truly yours,

Greg Gersekoski

Airmail

Foreign
Information
Service

March 28, 1960

Bulletin No. 2,105

Confidential for Customers
Australia: E-M

There has been a further relaxation of import regulations by the Australian Government. Some 90 per cent of all imports entering Australia are now free from import licensing. For these goods, banks in Australia can make exchange available simply on evidence of shipment.

Imports which remain subject to licensing cover principally consumer goods. Licensing control falls under the following categories.

Administrative—requiring special application.

Quotas—licenses are granted either on a quota established for the importer in a base year or on a replacement basis whereby a fresh license is issued when the previous license has been utilized. Current quotas generally have been increased by 20 per cent.

There has also been a relaxation of controls effecting remittances. Residents may make remittances of personal gifts, subscriptions, payments for services rendered, repayment of debts, fees, rates, taxes and other like commitments, upon £A. 150 per annum and sustenance up to £Stg. 80 per month (remittable 3 months in advance if desired).

[Handwritten note]

Peirels

Will you pls find out just where our products—complete or in components—fit in.

Jim.
4/19

April 21, 1960

Mr. Edmund E. Jarvis,
Trade Commissioner,
Australian Trade Commission,
6 W. Michigan Avenue,
Chicago 2, Illinois.

Dear Mr. Jarvis:

The foreign information service has advised us with their bulletin of March 28 that a further relaxation of import regulations has been announced by the Australian Government. It was stated, that about 90% of all imports entering Australia are now free from import licensing and banks in Australia are free to make exchange available for such imports simply on evidence of shipment.

We are manufacturers of electronic products, radios, television receivers, and record playing instruments which we offer in the form of completely assembled units and also in the form of kits of parts for local assembly.

We will appreciate your information as to how our above indicated products are affected by this new relaxation of import restrictions and if our products can now be imported freely into Australia, subject only to normal clearance through customs channels.

For your convenience, we are enclosing a stamped self-addressed envelope for your reply and thanking you in advance for your kind attention, we remain,

Yours very truly,

Walter R. Peirels,

Assistant Sales Manager
International Division.

WRP/ag
Enclosure
bcc: Mr. J. A. Miguel, Jr.

Australian Government Trade Commissioner.

6 North Michigan Avenue — Cable Address Austrade
Chicago, Illinois, U. S. A. — Telephone RAndolph 6-5170

(Stamp) Received Jul 19 1960, Jul 20 1960 (Illegible).

Your Ref. July 18, 1960

Our Ref. 7/R/E

Mr. Walter R. Peirels,
Assistant Sales Manager,
International Division,
Zenith Sales Corporation,
6001 Dickens Avenue,
Chicago 39, Illinois

Dear Mr. Peirels:

I regret the delay in answering your letter of April 21, but the nature of your enquiry required a clarification on the subject with the Department of Trade in Canberra which has advised as follows:

"In order to indicate whether the firm's products (classed broadly as electronic) are subject to licensing or not, it is necessary to have details as to what particular items are involved—as licensing treatment accorded is determined by the tariff classification of the goods concerned.

"A wide range of electronic goods are exempt from control and it could well be that all the firm's products are no longer subject to import licensing. To indicate the precise licensing position, however, further details should be submitted.

"In respect of items specifically mentioned viz—radios, television receivers and record playing instruments the position is that these items are no longer subject to import licensing."

I trust that you will find the foregoing information interesting and illuminating, and if other questions should arise please do not hesitate to write us.

Sincerely yours,

AEG/pe E. E. Jarvis, *Trade Commissioner.*

DEFENDANT'S BULK EXHIBIT NO. 216.

MONTHLY BU[illegible]TIN
of
PRODUCTION STATISTICS

No. [illegible] October, 1900

COMMONWEALTH BUREAU
of
CENSUS AND STATISTICS
CANBERRA AUSTRALIA

PREPARED UNDER INSTRUCTIONS F[illegible] [illegible]ORABLE THE TREASURER

COMMON[illegible] [illegible]TICIAN

MONTHLY BULLETIN OF AUSTRALIAN PRODUCTION STATISTICS

No. 125 OCTOBER, 1960

For the purpose of the accompanying statistics, a "factory" is taken to be a manufacturing establishment in which four or more persons are employed, or in which power other than manual is used, and the production of small establishments not classified for statistical purposes as factories is not included in the figures shown herein. Annual totals for 1948-49 and the last three complete financial years are shown in conjunction with (a) totals for the most recent six month and three month periods, together with comparative figures for the same periods, twelve months earlier, and (c) monthly totals for each of the latest thirteen months (in most cases).

Figures from July, 1959 onwards are preliminary and subject to revision, but the annual totals shown for 1958-59 are final.

An index of the contents is given on page 2.

Many of the items included are shown in greater detail in the Secondary Industries Bulletin and the series of Manufacturing Industries Bulletins.

The production of each of the commodities listed is given up to the latest available month. For each commodity other than those collected by, or in conjunction with Government Statisticians, the authority responsible for providing the figures is indicated by a footnote to the item title. Figures up to 1958-59 inclusive represent totals derived, wherever possible, from the annual factory returns collected by Deputy Commonwealth Statisticians in each State. It should be noted that in some cases annual returns are accepted from factories for a year other than the normal financial year ended June, 30th.

PERSONS USING THIS BULLETIN ARE ASKED TO NOTE PARTICULARLY THE FOLLOWING: -

1. The Monthly Bulletin of Production Statistics contains data of monthly output of over 150 individual factory products. As monthly particulars of additional items are collected and become available for publication, they will be included in the Bulletin. The items for which quantity of output is published herein are not, however, selected as representative of all factory output. In practice, it is not possible to make such a selection at present.

2. The tables should be read only as showing monthly trends in output of the individual items or groups of items listed. They have not been summarised into a monthly index of Volume of Factory Output, nor a monthly index of Industrial Production because they cannot be assumed to be representative of total trends in volume of factory output nor volume of industrial production. It is, in fact improbable that they are continually representative in this sense.

3. Although the list of items in these monthly tables includes only a small proportion of all the items produced in factories, it nevertheless relates directly to items accounting for possibly up to 35 per cent. of total value of factory output.

4. Comparable annual data of quantity of output are collected at present for a longer list of items covering about one-half of factory production, measured in gross value of output, or slightly less (about 45 per cent.) measured in terms of net value of output or "value added" by process of manufacture. Among the factors limiting useful extension in the annual collection of factory output (in quantitative terms) into the field as yet unexplored in that way are: (i) the fact that a large part of factory production cannot be expressed in quantity terms but only as a gross or net value of output; (ii) the great and growing diversity of factory products; and (iii) the absence of homogeneity in many types of factory products.

S.R. CARVER
COMMONWEALTH STATISTICIAN

03057

10.

AUSTRALIAN PRODUCTION STATISTICS

Item / Period	WIRELESS AND TELEVISION						
	Radio Sets					Television Sets	
	Car	Portable	Other (a)	Radio-grams	Total	Television only	With Radio and/or Record Player
	- thousand -						Number
Year : 1948-49	n.a.	n.a.	n.a.	n.a.	294.1	..	..
1957-58	85.4	77.4	116.1	101.9	380.8	273.8	8.7
1958-59	92.4	113.4	100.7	71.8	378.3	305.1	11.3
1959-60	105.9	167.6	75.7	56.7	405.9	435.3	6.6
Latest 6 Months, 1960	53.7	124.3	33.9	23.9	235.8	261.6	2.47
Same 6 months, 1959	36.8	46.5	34.5	30.2	148.0	240.5	4.27
Latest 3 months, 1960	31.6	95.1	15.7	11.0	153.4	119.1	1.02
Same 3 months, 1959	23.4	28.4	21.7	14.2	87.7	123.6	1.97
Month, 1959: October	8.92	14.55	9.85	5.08	38.4	39.9	0.60
November	9.56	22.92	10.65	4.51	47.6	33.5	0.70
December	11.17	27.44	9.18	5.66	53.4	28.4	0.62
1960: January	6.03	14.98	3.88	2.79	27.7	18.2	0.34
February	12.13	16.70	5.02	3.85	37.7	25.8	0.38
March	14.06	14.82	5.03	6.21	40.1	33.8	0.39
April	9.73	14.70	5.10	4.51	34.1	31.9	0.43
May	8.04	13.35	3.98	5.73	31.1	45.4	0.55
June	6.49	8.46	6.56	4.52	26.0	49.2	0.53
July	7.50	7.44	7.63	2.71	25.3	r47.9	0.37
August	9.04	25.30	4.51	3.33	42.2	r50.1	0.32
September	11.22	29.24	4.56	3.66	48.7	r42.2	0.32
October	11.38	40.50	6.66	3.97	62.5	*26.8	*0.38

Item / Period	Record Changers	Record Players	Mono-graphs	Phonograph Records			Tape and Wire Recorders
				Single Play (b)	Extended Play (c)	33⅓ r.p.m.	
	- thousand -						Number
Year : 1948-49	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1957-58	123.4	57.6	n.a.	4,861	1,325	2,253	3,120
1958-59	57.3	58.0	29.1	3,736	1,282	2,113	3,198
1959-60	49.5	47.9	24.9	3,505	1,240	2,531	4,865
Latest 6 months, 1960	17.1	23.9	14.2	1,648	494	1,210	1,970
Same 6 months, 1959	29.5	22.3	10.5	1,695	612	1,058	2,135
Latest 3 months, 1960	9.1	11.2	7.7	825	300	662	1,019
Same 3 months, 1959	15.5	9.8	4.4	900	373	610	1,550
Month, 1959: October	4.73	2.86	1.66	316	153	218	543
November	4.82	2.91	2.99	250	136	258	439
December	3.55	4.78	2.64	272	89	200	483
1960: January	2.18	3.15	1.68	254	74	164	212
February	4.21	4.22	2.56	353	128	261	251
March	5.15	5.73	2.99	344	131	272	687
April	3.34	4.58	1.68	268	73	209	314
May	3.59	3.77	2.29	308	70	214	270
June	2.45	5.17	1.79	228	59	165	396
July	1.96	3.79	2.39	287	65	169	285
August	2.64	3.57	2.31	279	95	218	147
September	3.12	4.69	2.62	277	106	219	492
October	3.31	2.72	2.60	269	99	225	380

(a) Mantel, Table and Console. (b) 78 r.p.m. and 45 r.p.m. Single Play. (c) 45 r.p.m. Extended Play, 33⅓ r.p.m. 7" and 16 2/3 r.p.m. 7", 10" and 12".

*November, 1960; Television only 20.0 ; with Radio and/or Record Player 0.32.

CRRP Pub. ... Canberra
To: Foreign Communications Division
Office of Foreign Commercial Services
Department of Commerce
Washington 25, D.C.
BDSA 315-315

MONTHLY BULLETIN OF PRODUCTION STATISTICS

No. 174
MARCH, 1963

RECEIVED
JUL 2 1963
LEATHER, GLOVES & ALLIED PRODUCTS DIVISION

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS, CANBERRA, AUSTRALIA

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, AUSTRALIA

MONTHLY BULLETIN OF PRODUCTION STATISTICS

NO. 176 - MARCH, 1961.

EXPLANATORY NOTES

1. The Bulletin contains statistics of production in Australia of mine and factory products for which monthly figures are available. An alphabetical index of these products is given on page 2.

2. For each product annual totals for the last three complete financial years are shown in conjunction with (a) totals for the most recent six-monthly and three-monthly periods together with similar figures for the same periods, twelve months earlier and (b) monthly totals for each of the latest fourteen months (where available).

3. The annual totals for the years 1959-60 and 1960-61 are mostly derived from the annual factory returns collected by the Deputy Commonwealth Statistician in each State and are final. It should be noted that in some cases, returns are accepted from factories for a year other than the normal financial year ending on 30th June.

4. The monthly figures are also based for the most part on returns collected by the Deputy Commonwealth Statisticians. Where another authority is the source, this is shown in a footnote. Monthly figures from July, 1961 onwards may be revised when the results of the Annual Factory Returns for 1961-62 become available.

5. For the purpose of factory statistics collections, a factory is taken to be a manufacturing establishment in which four or more persons are employed or in which power other than manual is used; any production in small establishments not classified as factories is not included in the figures shown herein.

6. Further detail in respect of many of the items will be found on an annual basis in the Secondary Industries Bulletin and the series of Manufacturing Industries Bulletins published by this Bureau and on a monthly basis, in the Monthly Production Summaries, also issued by this Bureau.

PERSONS USING THIS BULLETIN ARE ASKED TO NOTE PARTICULARLY THE FOLLOWING:-

1. The Monthly Bulletin of Production Statistics contains data of monthly output of over 300 individual factory products. As monthly particulars of additional items are collected and become available for publication, they will be included in the Bulletin. The items for which quantity of output is published herein are not, however, selected as representative of all factory output. In practice, it is not possible to make such a selection at present.

2. The tables should be read only as showing monthly trends in output of the individual items or groups of items listed. They have not been summarised into a monthly index of Volume of Factory Output, nor a monthly index of Industrial Production, because they cannot be assumed to be representative of total trends in volume of factory output or volume of industrial production. It is, in fact, improbable that they are continually representative in this sense.

3. Although the list of items in these monthly tables includes only a small proportion of all the items produced in factories, it nevertheless relates directly to items accounting for possibly up to 40 per cent. of total value of factory output.

4. Comparable annual data of quantity of output are collected at present for a longer list of items covering about one-half of factory production, measured in gross value of output, or slightly less (about 45 per cent.) measured in terms of net value of output or "value added" by process of manufacture. Among the factors limiting useful extension in the annual collection of factory output (in quantitative terms) into the field as yet unrecorded in this way are: (i) the fact that a large part of factory production cannot be expressed in quantity terms but only as a gross or net value of output; (ii) the great and growing diversity of factory products; and (iii) the absence of homogeneity in many types of factory products.

AUSTRALIAN PRODUCTION STATISTICS

Period	RADIO SETS					Transistors (excl. Power)	Magnetic Sound Recorders (b)
	Car	Portable	Other (a)	Radio-grams	Total		
	- thousand -						number
Year : 1959-60	104.8	164.4	76.3	57.1	402.6	880	4,342
1960-61	87.2	244.4	74.4	48.8	454.8	2,111	4,363
1961-62	58.1	177.6	80.5	52.3	368.5	1,758	4,988
Latest 6 months, 1962-63	64.2	131.8	67.0	33.6	296.6	1,373	2,592
Same 6 months, 1961-62	29.8	108.3	32.5	27.3	197.9	917	n.a.
Latest 3 months, 1962-63	30.4	50.9	24.9	15.7	121.9	589	1,499
Same 3 months, 1961-62	13.4	38.5	14.0	13.9	79.8	356	n.a.
Month, 1962 : February	5.17	13.55	[illegible]	5.19	29.1	118	n.a.
March	5.23	13.74	[illegible]	5.91	30.6	145	n.a.
April	4.55	10.61	[illegible]	3.67	24.7	147	n.a.
May	6.36	9.53	[illegible]	4.58	29.5	117	n.a.
June	7.01	10.78	[illegible]	3.29	30.4	100	n.a.
July	8.91	9.88	[illegible]	4.59	31.0	119	545
August	9.19	13.19	[illegible]	6.08	37.9	160	613
September	9.93	14.35	[illegible]	5.48	41.9	186	340
October	10.75	21.26	[illegible]	6.02	50.4	274	458
November	13.10	31.74	[illegible]	6.38	70.7	305	382
December	9.96	27.85	[illegible]	5.49	53.6	205	253
1963 : January	7.44	15.94	[illegible]	3.88	36.6	177	232
February	10.89	17.90	[illegible]	5.48	42.2	206	594
March	12.04	17.04	[illegible]	6.37	43.1	206	673

Period	TELEVISION SETS			Phono-graphs (c)	PHONOGRAPH RECORDS		
	Tele-vision only	With Radio and/or Record Player	Tele-vision Picture Tubes		Single Play (d)	Extended Play (e)	33 1/3 R.P.M. (f)
	- thousand -						
Year : 1959-60	428.8	6.7	n.a.	25.5	3,500	1,239	2,530
1960-61	311.8	4.2	372.3	24.2	3,210	845	2,926
1961-62	287.7	7.2	327.6	24.4	3,018	755	3,421
Latest 6 months, 1962-63	123.4	4.71	183.8	20.4	1,814	504	1,830
Same 6 months, 1961-62	111.6	2.94	130.3	13.1	1,635	398	1,828
Latest 3 months, 1962-63	59.4	2.01	80.1	7.9	958	222	817
Same 3 months, 1961-62	59.7	1.91	75.2	6.1	865	195	867
Month 1962 : February	20.4	0.67	25.0	2.43	241	58	269
March	26.7	0.87	31.8	2.40	305	77	337
April	26.4	0.72	29.4	2.22	191	64	209
May	40.9	0.96	51.4	1.86	259	77	291
June	37.8	1.07	40.7	2.55	225	44	268
July	36.0	1.34	40.2	4.16	289	52	267
August	39.0	1.28	43.4	3.51	326	53	314
September	20.1	1.17	26.5	2.91	268	77	354
October	22.6	0.93	29.1	3.81	297	87	431
November	24.4	1.15	33.3	4.21	293	120	334
December	17.0	0.62	21.3	4.48	266	75	248
1963 : January	15.5	0.64	20.9	1.87	326	66	233
February	20.0	0.61	26.9	3.31	359	88	282
March	23.9	0.76	32.3	2.70	273	68	302

(a) Mantel, Table and Console. (b) Prior to July, 1962, described on Collection Form as "Tape and Wire Recorders". (c) Includes Record Players in Case or Cabinet. (d) 78 r.p.m. and 45 r.p.m. Single Play. (e) 45 r.p.m. Extended Play, 33 1/3 r.p.m. 7" and 16 2/3 r.p.m. 7", 10" and 12". (f) 10" and 12".

MONTHLY BULLETIN

OF

PRODUCTION STATISTICS

No. 180
SEPTEMBER, 1963

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS, CANBERRA, AUSTRALIA

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, AUSTRALIA

MONTHLY BULLETIN OF PRODUCTION STATISTICS

NO. 180 : SEPTEMBER, 1963

EXPLANATORY NOTES

1. The Bulletin contains statistics of production in Australia of mine and factory products for which monthly figures are available. An alphabetical index of these products is given on page 2.

2. For each product annual totals for the last three complete financial years are shown in conjunction with (a) totals for the most recent six-monthly and three-monthly periods together with similar figures for the same periods, twelve months earlier and (b) monthly totals for each of the latest fourteen months (where available).

3. The annual totals for the years 1959-60 and 1960-61 are mostly derived from the annual factory returns collected by the Deputy Commonwealth Statistician in each State and are final. It should be noted that in some cases, returns are accepted from factories for a year other than the normal financial year ending on 30th June.

4. The monthly figures are also based for the most part on returns collected by the Deputy Commonwealth Statisticians. Where another authority is the source, this is shown in a footnote. Monthly figures from July, 1962 onwards may be revised when the results of the Annual Factory Returns for 1962-63 become available.

5. For the purpose of factory statistics collections, a factory is taken to be a manufacturing establishment in which four or more persons are employed or in which power other than manual is used; any production in small establishments not classified as factories is not included in the figures shown herein.

6. Further detail in respect of many of the items will be found on an annual basis in the Secondary Industries Bulletin and the series of Manufacturing Industries Bulletins published by this Bureau and on a monthly basis, in the Monthly Production Summaries, also issued by this Bureau.

PERSONS USING THIS BULLETIN ARE ASKED TO NOTE PARTICULARLY THE FOLLOWING:-

1. The Monthly Bulletin of Production Statistics contains data of monthly output of over 300 individual factory products. As monthly particulars of additional items are collected and become available for publication, they will be included in the Bulletin. The items for which quantity of output is published herein are not, however, selected as representative of all factory output. In practice, it is not possible to make such a selection at present.

2. The tables should be read only as showing monthly trends in output of the individual items or groups of items listed. They have not been summarized into a monthly index of Volume of Factory Output, nor a monthly index of Industrial Production, because they cannot be assumed to be representative of total trends in volume of factory output or volume of industrial production. It is, in fact, improbable that they are continually representative in this sense.

3. Although the list of items in these monthly tables includes only a small proportion of all the items produced in factories, it nevertheless relates directly to items accounting for possibly up to 40 per cent. of total value of factory output.

4. Comparable annual data of quantity of output are collected at present for a longer list of items covering about one-half of factory production, measured in gross value of output, or slightly less (about 45 per cent.) measured in terms of net value of output or "value added" by processes of manufacture. Among the factors limiting useful extension in the annual collection of factory output (in quantitative terms) into the field as yet unrecorded in these monthly tables (i) the fact that a large part of factory production cannot be expressed in quantity terms but only as a gross or net value of output; (ii) the great and increasing diversity of factory products; and (iii) the absence of homogeneity in many types of factory products.

AUSTRALIAN PRODUCTION STATISTICS

Period	RADIO SETS					Transistors (excl. Power)	Magnetic Sound Recorders (b)
	Car	Portable	Other (a)	Radio-grams	Total		
	- thousand -						number
Year : 1960-61	87.2	284.4	74.4	48.8	454.8	2,111	4,363
1961-62	57.7	178.1	78.6	52.6	367.0	1,758	5,032
1962-63	123.0	206.5	106.3	64.2	500.0	2,393	6,070
Latest 6 months, 1963	66.8	78.0	27.4	29.4	201.6	1,454	2,191
Same 6 months, 1962	46.0	68.3	53.4	27.7	195.4	829	n.a.
Latest 3 months, 1963-64	36.0	40.7	17.3	15.0	109.0	899	1,211
Same 3 months, 1962-63	28.1	37.4	29.2	16.2	110.8	465	1,498
Month, 1962 : August	9.19	13.19	9.43	6.08	37.9	160	613
September	9.95	14.35	12.12	5.48	41.9	186	340
October	10.75	21.26	12.38	6.02	50.4	274	458
November	13.10	31.74	19.49	6.38	70.7	305	382
December	9.96	27.89	10.26	5.49	53.6	205	253
1963 : January	7.44	15.94	9.33	3.88	36.6	177	232
February	10.89	17.90	7.90	5.47	42.2	206	594
March	12.04	17.04	7.64	6.37	43.1	206	673
April	10.34	13.23	2.99	5.68	32.2	179	627
May	12.57	13.35	3.06	4.80	33.8	229	249
June	7.88	10.70	4.09	3.92	26.6	147	104
July	12.36	9.86	7.38	4.71	34.3	292	133
August	12.12	13.85	4.78	4.83	35.6	304	460
September	11.49	17.01	5.11	5.46	39.1	303	618

Period	TELEVISION SETS			Phono-graphs (c)	PHONOGRAPH RECORDS		
	Tele-vision only	With Radio and/or Record Player	Tele-vision Picture Tubes(g)		Single Play (d)	Extended Play (e)	33 1/3 R.P.M. (f)
	- thousand -						
Year : 1960-61	311.8	4.2	372.3	24.2	3,210	845	2,926
1961-62	287.7	7.2	328.7	24.5	3,018	755	3,421
1962-63	r 281.4	11.1	r 370.7	r 36.5	3,629	897	3,669
Latest 6 months, 1963	143.5	5.65	190.3	13.6	1,924	567	1,997
Same 6 months, 1962	191.3	6.54	231.5	17.2	1,558	347	1,703
Latest 3 months, 1963-64	71.7	3.02	93.3	8.1	992	256	1,093
Same 3 months, 1962-63	86.2	3.79	110.0	10.6	883	182	935
Month, 1962 : August	30.0	1.28	43.4	3.51	326	53	314
September	20.1	1.17	26.5	2.91	268	77	354
October	22.6	0.93	29.1	3.81	297	87	431
November	24.4	1.15	33.3	4.21	293	120	334
December	17.5	0.62	21.3	4.48	266	75	248
1963 : January	15.1	0.64	20.9	1.87	326	66	233
February	20.0	0.61	26.9	3.31	359	88	282
March	23.9	0.76	32.3	2.70	273	68	302
April	21.5	0.87	30.2	1.26	291	44	297
May	28.2	0.94	40.4	r 2.47	325	56	360
June	22.1	0.82	26.4	1.78	316	111	247
July	24.5	1.10	34.9	1.86	361	78	377
August	24.2	0.88	30.2	2.66	316	115	363
September	23.0	1.04	28.2	3.55	315	63	353

(a) Mantel, Table and Console. (b) Prior to July, 1962, described on Collection Form as "Tape and Wire Recorders". (c) Includes Record Players in Case or Cabinet. (d) 78 r.p.m. and 45 r.p.m. Single Play. (e) 45 r.p.m. Extended Play, 33 1/3 r.p.m. 7" and 16 2/3 r.p.m. 7", 10" and 12". (f) 10" and 12". (g) Includes those incorporating used screens from July, 1963.

CENTRAL STATISTICAL OFFICE

MONTHLY DIGEST OF STATISTICS

No. 214

OCTOBER 1963

RECEIVED
NOV 21 1963
J. A. MICHEL, JR.

LONDON: HER MAJESTY'S STATIONERY OFFICE

SEVEN SHILLINGS

MONTHLY DIGEST OF STATISTICS

No. 214

OCTOBER 1963

This *Digest* has been prepared by the Central Statistical Office in collaboration with the Statistics Divisions of Government Departments.

2. The name of the Department or organisation providing the statistics is shown under each table. Some of the statistics provided by Departments are actually collected by other organisations such as nationalised boards and trade associations. The assistance provided by these organisations, too numerous to mention individually, is gratefully acknowledged.

3. The figures in the *Digest* are mainly totals for calendar months or monthly averages.

4. Some of the figures included in this *Digest* are provisional only and may be revised in later issues.

Definitions

5. *A Supplement of Definitions and Explanatory Notes*, published with the January issue, gives detailed definitions of all the terms and units used in the *Digest*.

6. The following general definitions should be noted in using the *Digest*:

Area covered. Except where otherwise stated, all statistics relate to the United Kingdom of Great Britain and Northern Ireland.

Units of measurement.
Ton = long ton of 2,240 lb.
Gallon = Imperial gallon.

Consumption and stocks. The terms "consumption", "disposals" and "stocks" are normally defined in detail in the Supplement to the *Digest*.

Figures of consumption and stocks are seasonal and should be used with caution. The stocks figures given may often relate to only part of the total stocks in the country.

External trade. Owing to differences in coverage and timing, figures of imports and exports are not always comparable with those for production, consumption and stocks.

Symbols and conventions used

7. *Symbols.* The following symbols are used throughout:

.. not available.

— nil or less than half the final digit shown.

* average (or total) of five weeks.

8. *Change of basis.* A line drawn across a column between two consecutive figures indicates that the figures above and below the line have been compiled on different bases and are not strictly comparable. In each case a footnote explains the difference.

9. *Rounding of figures.* In tables where figures have been rounded to the nearest final digit, there may be an apparent slight discrepancy between the sum of the constituent items and the total as shown.

Central Statistical Office,
Great George Street, S.W.1.

25th October, 1963.

ELECTRONIC APPARATUS

Radio and other electronic apparatus

Deliveries

TABLE 78 — £ thousand

	Electronic control equipment(1)		Electronic computers		Electronic measuring and testing equipment		Transmitters (2)		Radar and navigational aids		Radio communication equipment		All other electronic apparatus(3)	
	Total	For export	Total	For export	Total	For export	Total	For export	Total	For export	Total	For export	Total	For export
1959	3,356	432	7,442	2,090	6,702	1,890	3,846	2,364	14,410	8,943	10,648	6,287	5,951	3,707
1960	3,169	340	8,196	2,301	8,472	2,345	4,360	2,820	14,619	9,875	11,585	7,531	7,129	3,139
1961	11,918	3,101	10,903	1,262	9,033	3,193	5,478	3,097	14,089	9,066	13,406	8,645	9,871	4,568
1962	15,384	3,904	13,440	2,544	11,599	3,643	6,374	3,780	18,121	11,998	15,677	10,020	9,164	3,839
1960 1st qtr.	672	75	2,036	494	2,126	629	936	544	3,926	2,868	2,890	1,735	1,513	581
2nd qtr.	698	107	1,255	541	2,192	923	1,089	605	3,577	2,509	2,922	1,822	1,767	829
3rd qtr.	817	74	2,094	726	1,959	768	867	617	3,074	1,930	2,903	1,686	1,706	746
4th qtr.	981	85	2,811	540	2,194	926	1,468	1,053	4,341	2,877	3,370	2,368	2,143	982
1961 1st qtr.	2,362	507	2,911	253	2,134	727	1,152	662	3,548	2,368	3,287	2,127	2,549	1,205
2nd qtr.	2,709	740	2,888	305	2,142	772	1,334	837	3,725	2,549	3,298	2,113	2,164	868
3rd qtr.	3,186	978	2,266	349	2,154	793	1,336	695	3,197	1,857	2,959	1,822	2,035	833
4th qtr.	3,662	917	2,838	364	2,603	901	1,655	913	3,579	2,433	3,890	2,583	2,722	1,562
1962 1st qtr.	3,156	868	3,009	184	2,731	877	1,800	1,020	3,369	2,440	3,994	2,718	2,573	957
2nd qtr.	3,911	924	2,834	593	2,754	797	1,600	1,008	4,852	2,406	4,291	2,683	2,013	688
3rd qtr.	3,493	923	3,830	734	2,973	1,055	1,092	567	3,513	2,354	3,607	2,178	2,118	1,034
4th qtr.	3,823	1,188	3,768	1,043	3,142	935	1,882	1,185	5,388	3,598	3,785	2,441	2,460	1,160
1963 1st qtr.(4)	4,425	1,355	6,057	613	3,290	795	1,110	594	3,877	1,956	3,763	1,522	2,872	652
2nd qtr.(4)	4,012	1,346	4,831	943	2,656	841	1,102	588	3,801	2,261	3,587	1,267	2,869	973

Monthly averages or calendar months

	Radios and radiograms(5)						Television sets(5)				
	Production	Home sales				Export sales(5)	Production	Home sales		Export sales(5)	
		Radio sets		Radiograms							
	Thousands	Thousands	£ thousand	Thousands	£ thousand	Thousands	£ thousand	Thousands	Thousands	£ thousand	Thousands	£ thousand
1959	153	120	1,116	16	483	22	213	220·6	231·3	7,836	2·0	66
1960	209	154	1,365	17	466	23	231	178·4	151·4	5,018	3·2	110
1961	256	219	1,714	16	412	18	192	164·7	125·7	4,072	3·7	126
1962	248	213	1,594	17	472	13	130	121·9	114·8	3,946	9·3	292
1962 July	272	247	1,856	10	263	16	152	110·6	69·2	2,395	11·3	339
August ...	213	219	1,642	17	505	11	114	81·1	115·5	4,020	10·7	348
September ...	257	203	1,530	28	790	11	128	121·1	161·3	5,550	13·8	448
October ...	291	239	1,821	33	879	14	133	160·1	192·8	6,651	5·7	208
November ...	267	219	1,670	34	940	15	124	185·1	204·0	7,066	4·3	161
December ...	182	174	1,321	21	587	13	123	119·9	125·7	4,313	3·3	122
1963 January ...	206	189	1,568	13	375	16	149	121·6	115·4	4,066	2·6	99
February ...	191	185	1,354	16	467	17	134	117·8	130·0	4,557	4·1	165
March ...	220	234	1,626	17	485	36	285	130·5	118·0	4,193	5·4	236
April ...	204	195	1,503	13	346	19	169	113·5	84·8	2,939	4·2	153
May	268	261	2,057	18	525	17	161	154·0	110·1	3,903	3·5	132
June... ...	220	240	1,866	11	298	13	114	127·5	92·4	3,364	3·4	122
July ...	241	262	1,991	14	404	9	95	131·8	111·7	4,139	4·6	153
August ...												
September ...												

(1) From January 1961 the field of enquiry has been extended.
(2) Transmitters (sound and vision) for public broadcasting and ancillary equipment.
(3) Electronic instruments for nuclear application, electronic heating equipment, industrial television equipment, electronic simulators and trainers and other electronic apparatus.
(4) Provisional.
(5) Including chassis.
(6) Value figures are calculated at f.o.b. prices.

Source: Ministry of Aviation

CENTRAL STATISTICAL OFFICE

Annual Abstract of Statistics

No. 100
1963

LONDON: HER MAJESTY'S STATIONERY OFFICE
1963

INTRODUCTION

THIS ANNUAL ABSTRACT OF STATISTICS for the United Kingdom has been prepared by the Central Statistical Office in collaboration with the Statistics Divisions of Government Departments.

2. The name of the Department or organisation providing the statistics is shown under each table. Some of the statistics provided by Departments are actually collected by other organisations such as nationalised boards and trade associations. The assistance provided by these organisations, too numerous to mention individually, is gratefully acknowledged.

3. In addition, an Index of Sources is given on pages 316 to 322, which sets out the official publications or other sources from which the statistics are taken or to which further reference can be made. The tables in this issue contain the latest statistics available, even though they may not yet have appeared in departmental publications.

4. Most of the tables in this *Abstract of Statistics* give annual figures, so far as they are available, for each of the years 1952 to 1962. Some of the tables include figures for the early months of 1963. Current data for many of the series appearing in the *Abstract* are contained in *Economic Trends*, the *Monthly Digest of Statistics* and in *Financial Statistics*, prepared by the Central Statistical Office and published by H.M. Stationery Office.

Definitions

5. *Area covered.* Except where otherwise stated all statistics relate to the United Kingdom of Great Britain and Northern Ireland.

6. *Time series.* So far as possible annual totals are given throughout, but quarterly or monthly figures are given where these are more suitable to the type of series. Except where it is stated to the contrary all statistics are for calendar years ended 31st December.

For some series, weekly data are collected and not figures for calendar years. In such cases the figures appearing in the columns for particular years are cumulative totals for 52 or 53 weeks and, where this is so, attention is drawn to the footnotes to the tables. Since the series have not been adjusted to make them equivalent to a calendar year, care must be taken in making comparisons between figures for periods of different numbers of weeks.

7. *Explanatory notes.* Several sections of the *Abstract* are preceded by pages of explanatory notes which should be read in conjunction with the tables. In addition, definitions of many of the terms occurring in both the *Abstract* and the *Monthly Digest of Statistics* are given in detail in the *Supplement of Definitions and Explanatory Notes to the Monthly Digest of Statistics* published annually by H.M. Stationery Office. Detailed notes on items which appear in both the *Abstract* and *Financial Statistics* are given in a section called 'Notes and definitions' at the end of each month's issue of *Financial Statistics*. The original sources listed in the Index of Sources may also be consulted.

8. *Consumption and stocks.* Statistics of consumption and stocks should be used with care. The terms "consumption," "disposals" and "stocks" are normally defined in detail in the *Supplement* to the *Monthly Digest of Statistics*. The stocks figures given may often relate to only part of the total stocks in the country.

Revisions and changes in content

9. *Revisions.* The scope of the *Abstract* is revised from time to time to include new statistical information as it becomes available. Some of the figures included in this *Abstract* are regarded by Departments as provisional only and may be revised subsequently.

10. *New tables.* The following new tables have been introduced into the present issue of the *Abstract*:

	Table
Production of synthetic resins	190
(This table replaces Table 192, Plastic materials, in the *Annual Abstract of Statistics, 1962*.	
Index numbers of turnover in the catering trade	226
Northern Ireland banks	332
Hire purchase and other instalment credit	341
Agricultural producer returns	366
Standard regions and conurbations for statistical purposes	Appendix I
Standard Industrial Classification	Appendix II

11. *Extended series and revisions.* Other changes in the contents of this issue as compared with the previous issue involve the addition of new series to existing tables and some substantial revisions. The following are the tables principally affected by these alterations:

INTRODUCTION

Table

94 Pupils in schools (England and Wales).

This table now shows full-time equivalent teachers and pupils per full-time equivalent teacher.

268–274 Balance of payment of the United Kingdom.

These tables have been amended to correspond with *United Kingdom Balance of Payments*, 1963.

275 Official holdings of gold and currencies and acceptances outstanding.

This table now shows separately gold and convertible currencies.

280–95 National income and expenditure.

These tables are from *National Income and Expenditure*, 1963.

Symbols and conventions used

13. *Change of basis.* Where consecutive figures have been compiled on different bases and are not strictly comparable, a footnote is added indicating the nature of the difference.

14. *Units of measurement.* A table showing the various units of measurement used in this *Abstract* and, where appropriate, their metric equivalents, is given on page xi.

15. *Rounding of figures.* In tables where figures have been rounded to the nearest final digit, there may be an apparent slight discrepancy between the sum of the constituent items and the total as shown.

16. *Symbols.* The following symbols have been used throughout the *Abstract:*

.. = not available.

— = nil or negligible (less than half the final digit shown).

Central Statistical Office,
Great George Street,
London, S.W.1.
October, 1963

Output of machinery, instruments and other engineering products (1)

TABLE 195 (*continued*)

	Unit	1955	1956	1957	1958	1959	1960	1961	1962
Miscellaneous electrical equipment									
Radio sets: Transistorised(*)	Thousands	1,623	1,325	1,466	1,351	1,381	1,250	2,417	2,517
Other(*)	"						714	278	84
Car radios(*)	"	102	121	134	193	277	296	199	172
Radiograms(*)	"	417	236	243	264	176	244	180	203
Television sets(*)	"	1,771	1,457	1,867	1,998	2,863	2,141	1,256	1,463
Cine-projectors: 35mm.	Value £ thousand	1,113	754	673	616	467	411	377	309
Other	" "	1,591	1,591	1,354	1,395	1,643	1,562	1,508	1,600
Blankets and pads(10)	Thousands(10)	333	539	563	686	1,031	1,400	1,212	1,382
Dry shavers(10)	" (10)	656	898	1,011	859	997	986	850	852
Floor polishers	" (10)	146	116	105	88	91	81	88	122
Irons	" (10)	2,963	2,452	2,428	2,448	2,483	2,433	2,251	2,051
Toasters	" (10)	328	269	298	285	247	252	347	310
Vacuum cleaners	" (10)	1,238	1,026	1,245	1,340	1,651	1,317	1,443	1,356
Domestic washing machines	Thousands(10)	918	614	667	876	1,230	1,019	995	1,102
	Value £ thous. (*)(10)	26,741	19,174	23,499	33,014	50,905	42,123	42,825	46,998
Electric lamps, complete (including flash-lamp bulbs)	Millions(*)	348	330	297	312	326	378	399	382
	Value £ thousand(11)	18,393	17,964	19,343	19,680	20,968	23,778	25,113	25,364
Other machinery and equipment									
Cameras (excluding cine-cameras)	Thousands	1,476	1,302	1,115	872	957	1,036	1,079	869
	Value £ thousand(12)	2,240	1,996	1,769	1,465	1,540	1,971	1,905	1,632
Industrial valves	Value £ million	29·1	33·6	37·5	35·1	35·0	38·2	43·4	43·7
Mining machinery	" "	39·9	41·7	45·2	53·0	46·5	46·1	53·6	49·7
Pumps(13)	" "	40·8	43·8	44·7	48·4	52·2	54·9	54·9	54·8
Refrigerating machinery: Domestic	Value £ thousand	16,644	14,815	17,532	24,638	36,218	38,053	29,517	25,781
Commercial	" "	9,831	10,860	12,152	13,885	16,714	17,988	15,693	14,765
Industrial	" "	3,603	4,407	4,680	5,532	6,092	6,561	7,122	7,263

(1) Figures of quantity relate to complete units; figures of value include replacement parts and accessories except where otherwise stated. The figures related to deliveries except where it is stated otherwise. (2) Including tractors for industrial and agricultural uses, but excluding those for road haulage. Market-garden type tractors, that is, tractors of under 10 horse-power appear in Table 196. Tractors for road haulage are included under "Goods vehicles" in Table 197. (3) Figures relate to production. (4) Figures relate to production up to second quarter 1956. (5) Deliveries of specialist producers from 1958. Earlier figures relate to production. (6) Excluding lifts, escalators and hoists, all of which are included under "Other mechanical handling equipment." The figures also exclude underground conveyors which are included under "Mining machinery." (7) Figures from October 1961 have been collected on a different basis and are not strictly comparable with those for earlier periods. (8) From 1959 grabs are included with complete excavators; before 1959 they are included with parts and accessories. (9) Excluding parts from April 1962. (10) Excluding replacement parts and accessories. (11) Including engines for use in industry, rail traction and track-laying tractors, marine auxiliary engines and some engines for marine propulsion. Engines for aircraft, road motor vehicles, fighting vehicles and wheeled and half-track tractors other than heavy earth-moving types, and heavy slow-speed engines for ship propulsion are excluded. (12) Excluding fuel oil burners. (13) Including electric motors and generators, other than turbo-generator sets, rotary converters, etc. (14) Excluding stationers' goods. (15) Blankets only from July 1959. (16) Figures from the third quarter of 1959 have been collected on a different basis and are not strictly comparable with those for earlier periods. (17) Home deliveries. (18) Including from 1958 hydraulic accumulators and rams.

Source: Board of Trade and Ministry of Aviation

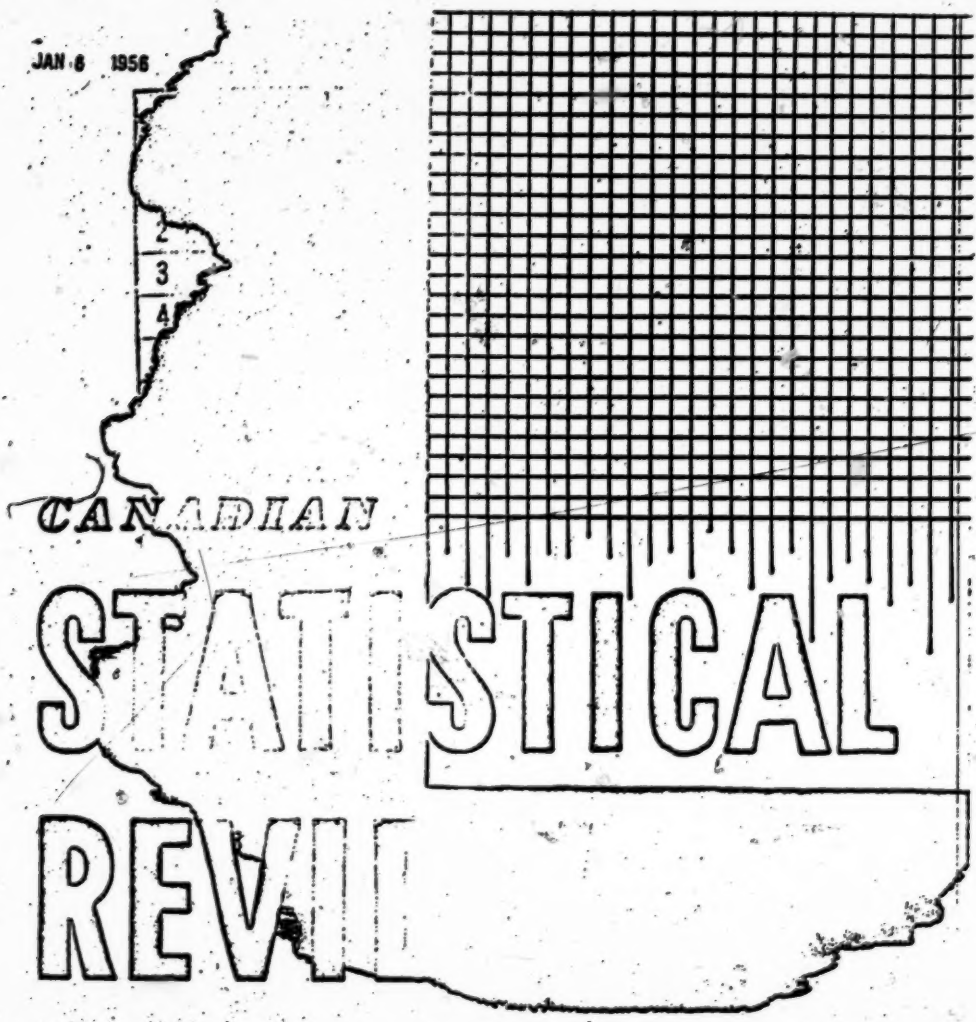
Agricultural machinery: Production(1)

TABLE 196

	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962
Value (£ million)											
Total(2)	106·1	93·8	107·8	113·5	102·5	130·6	142·5	163·2	166·3	176·3	182·0
of which for export	58·5	48·6	57·6	58·0	55·0	72·3	71·3	88·8	101·7	104·0	114·4
Number											
Tractors: Total	154,103	136,808	166,791	174,609	139,133	185,336	186,503	215,581	227,509	231,846	238,561
Agricultural types	124,270	109,756	135,186	135,238	111,363	147,396	144,078	164,784	183,311	176,892	201,952
Tracklayers(3)	3,540	2,704	3,834	3,702	2,818	3,279	2,950	3,402	1,330	1,168	1,050
Wheeled(4)	120,730	107,052	131,352	131,536	108,545	144,117	141,128	161,382	180,981	175,724	200,902
Market garden types(5)	29,833	27,052	31,605	39,371	27,770	37,940	42,425	50,797	45,198	54,954	36,609
Tractor mouldboard ploughs	44,715	28,472	29,702	26,571	19,534	22,443	27,835	23,802	16,388	18,530	17,081
Disc harrows	14,563	8,203	11,230	10,076	6,282	8,754	8,831	8,938	6,169	8,667	7,499
Cultivators (including rotary)	28,934	17,731	17,177	15,666	13,311	15,327	16,080	19,831	19,862	20,272	16,741
Corn drills(6)	6,719	4,274	4,010	3,796	2,993	4,164	3,695	4,581	3,541	3,801	3,292
Farmyard manure spreaders	11,065	7,687	9,403	10,697	6,203	8,390	7,814	7,623	7,781	8,027	7,259
Mowers	23,618	15,860	19,554	19,009	19,967	18,875	18,745	20,690	16,539	15,269	12,226
Pick-up balers	6,660	7,007	9,904	10,805	8,025	8,019	13,559	13,937	14,684	14,160	15,707
Combine harvesters	5,306	4,757	6,120	6,209	5,088	6,883	6,553	4,401	3,213	2,781	2,845
Grain and grass driers	796	614	1,151	1,142	1,612	1,751	1,581	1,768	1,647	1,595	1,945
Milking machines	9,895	10,882	10,238	7,617	10,005	8,241	6,513	8,138	8,435	9,349	7,194

(1) From 1959 figures relate to deliveries, except for agricultural tractors where the numbers produced are shown. (2) Including value of items not shown separately below, and also parts and accessories. (3) Including half-tracks up to 1955. (4) Including industrial wheeled and half-track tractors from 1956. (5) Tracklayers and wheeled types, including self-propelled cultivators and motor scythes. (6) Including combined seed and fertiliser drills.

Source: Board of Trade



CANADIAN STATISTICAL REVIEW

1955 SUPPLEMENT

SUPPLEMENT No. 2

DOMINION BUREAU OF STATISTICS, OTTAWA, CANADA

FOREWORD

This is the second volume in the series of biennial supplements to the *Canadian Statistical Review*. The present report supersedes the first issue which was published in December, 1953.

These supplements were initiated in response to demands from businessmen, economists and statisticians for a readily available and continuous record of current economic indicators. They contain three important features: first, they present in the form of monthly averages, from 1926 or the earliest year for which data are available, to the last complete year, the annual record of the 1,600 statistical series carried in the regular monthly issues of the "Canadian Statistical Review". This permits users of the statistics to locate historical figures without endless thumbing through back issues or maintaining extensive records. Secondly, except in certain specified cases, the annual and monthly data are comparable throughout the period covered, and incorporate all revisions which have been made since the publication of the 1953 supplement. Thirdly, these reference volumes provide monthly data for a longer period than can be shown in the monthly bulletins, thereby permitting more extensive analysis of seasonal trends.

The 1955 supplement presents, for most series, monthly or quarterly data from January 1952 through December 1954 or for a longer period where more space was available as a result of the lack of historical figures. Since the publication of the first supplement, both monthly and annual data have been revised in several cases, so that, in the case of monthly and quarterly data, the figures for 1950 and 1951 as shown in the 1953 volume are not always strictly comparable with those for later years contained in the present report. An examination of the statistics for 1952, shown in both publications, will reveal the extent of changes for those series which have been altered during the past two years. The annual data are comparable throughout except where specifically noted.

Designed to be used in conjunction with the latest monthly issue of the "Canadian Statistical Review", this volume presents the record of the more important economic indicators from 1926 to date. Through the means of weekly supplements, subscribers are assured of receiving most of the current figures as soon as they are forthcoming. These supplements are supplied without charge to regular subscribers to the "Canadian Statistical Review".

The present volume was prepared by the Business Statistics Section of the Research and Development Division of the Bureau.

HERBERT MARSHALL,
Dominion Statistician

TABLE 252. Radio and Television Receiving Sets

Monthly averages or calendar months

	Production[1]		Domestic Shipments				Factory Stocks End of Period		Imports[2]	Exports	Value of Factory Shipments	
			Radios									
	Radios	Television Sets	Total	Home Sets	Combination	Television Sets	Radios	Television Sets			Radios	Television Sets
	(Thousands)										(Thousand dollars)	
1926	2.5	—	..	..	..	—	..	—	2.75	..	..	—
1927	4.6	—	..	..	..	—	..	—	3.43	..	..	—
1928	6.8	—	..	..	..	—	..	—	..	..	..	—
1929	13.5	—	..	..	..	—	..	—	..	..	..	—
1930	14.2	—	14.0	14.0	3.8	—	26.9	—	8.91	..	..	—
1931	24.3	—	23.8	22.6	1.1	—	34.8	—	6.93	..	1,813	—
1932	16.1	—	11.1	10.7	0.4	—	32.3	—	6.70	..	923	—
1933	9.4	—	16.9	16.2	0.8	—	13.1	—	..	..	648	—
1934	15.7	—	15.9	15.8	0.1	—	24.4	—	..	..	813	—
1935	15.9	—	15.9	14.4	—	—	26.9	—	..	..	1,376	—
1936	21.2	—	20.7	19.6	0.1	—	46.3	—	..	..	1,548	—
1937	24.1	—	23.3	20.3	0.1	—	67.2	4	..	..	1,566	—
1938	20.3	—	20.9	19.9	0.1	—	47.6	—	3.3	..	1,066	—
1939	30.6	—	30.9	28.7	0.4	—	46.4	—	4.9	0.1	1,625	—
1940	38.4	—	38.6	33.1	0.7	—	..	—	3.9	0.1	1,963	—
1941	22.3	—	22.3	20.1	1.4	—	..	—	6.3	0.6	1,248	—
1942	14.8	—	15.4	13.4	1.3	—	..	—	6.3	0.2	1,389	—
1943	0.1	—	1.0	..	..	—	0.7	—	6.3	—	..	—
1944	—	—	0.1	..	..	—	0.1	—	6.3	—	..	—
1945	4.3	—	3.7	..	..	—	6.3	—	6.1	—	..	—
1946	32.3	—	47.4	41.3	4.9	—	16.6	—	3.5	1.3	2,654	—
1947	42.6	—	48.7	41.8	4.3	—	10.3	—	3.4	2.4	3,833	—
1948	53.3	—	48.5	31.7	8.8	.7	104.5	—	6.3	2.3	4,713	—
1949	48.9	0.8	46.4	34.1	7.6	..	109.6	1.0	4.8	2.6	4,479	—
1950	48.4	3.7	51.3	38.3	10.3	3.5	141.3	3.7	3.9	3.1	4,930	1,979
1951	42.4	4.1	47.9	37.6	7.9	3.3	135.9	14.7	4.7	2.9	4,388	1,726
1952	40.5	10.3	47.4	35.6	7.1	11.4	82.0	2.9	5.9	2.8	4,171	3,655
1953	42.8	25.9	51.7	33.6	7.1	29.5	102.5	29.3	4.9	1.9	4,343	12,266
1954	38.1	45.7	46.6	34.7	4.9	22.9	108.4	45.8	3.9	1.3	3,988	15,038
1953 J	33.8	3.7	38.7	15.5	6.7	4.6	104.7	13.8	3.9	2.5	3,136	2,256
F	39.3	3.5	34.7	12.4	7.5	3.9	178.6	12.4	3.3	1.9	2,803	2,071
M	36.1	3.1	31.5	13.7	5.7	6.1	181.1	15.4	3.4	2.9	2,393	2,643
A	38.7	4.6	36.8	21.4	4.0	4.0	168.8	14.9	6.5	2.5	2,317	1,989
M	38.3	6.2	44.5	23.8	4.3	5.9	136.1	15.4	7.3	2.4	2,446	2,551
J	38.7	5.3	36.3	22.7	4.8	4.3	131.7	15.8	5.4	2.8	2,396	2,139
J	39.3	5.4	38.8	20.1	4.0	5.3	130.6	15.8	5.5	1.8	2,362	2,843
A	42.9	8.6	41.3	24.0	7.0	11.3	123.8	13.8	5.3	2.4	2,884	5,884
S	44.8	11.5	51.7	27.1	10.9	17.5	104.7	4.8	10.0	2.9	3,304	7,377
O	43.1	22.4	51.3	43.0	10.3	23.6	94.8	6.8	6.8	2.1	4,465	8,758
N	48.9	22.9	72.2	53.1	11.2	24.6	78.9	4.3	4.3	2.7	6,013	10,530
D	56.5	35.7	76.9	64.1	9.6	27.0	53.0	2.9	2.9	2.5	6,138	11,383
1954 J	35.4	28.8	37.5	16.6	3.1	23.3	68.7	6.6	6.6	2.6	3,201	5,663
F	45.8	37.6	47.5	22.9	3.4	28.6	69.3	5.9	5.9	2.4	4,279	10,994
M	51.7	53.3	57.5	28.6	4.5	36.6	71.5	15.5	5.1	2.1	5,029	14,370
A	66.3	51.4	68.1	34.9	5.9	19.9	73.6	27.3	4.5	2.9	6,455	9,119
M	63.4	38.4	58.5	17.7	3.8	15.3	82.9	35.7	4.8	1.4	4,227	7,736
J	58.5	35.6	47.5	17.4	3.9	10.8	130.6	25.6	5.7	1.9	4,648	4,294
J	43.1	16.7	38.7	17.0	2.8	8.3	117.1	61.9	3.5	1.7	3,810	2,122
A	38.1	25.0	38.5	21.9	3.7	22.4	127.3	99.7	3.3	0.8	3,313	5,534
S	71.6	43.0	48.4	31.3	7.3	43.7	153.5	97.0	3.5	4.6	3,719	17,614
O	73.1	48.3	54.0	39.6	7.4	50.3	172.6	86.0	3.9	1.4	4,485	24,319
N	80.0	58.0	68.7	51.3	8.4	55.5	186.9	89.5	4.6	1.3	5,363	33,326
D	73.1	61.3	78.5	68.5	5.5	51.3	182.5	78.5	5.4	1.9	6,788	30,317
1955 J	37.9	43.6	38.9	18.7	3.7	34.4	194.8	78.6	1.8	0.7	3,948	12,885
F	54.9	51.4	53.5	25.7	4.1	36.0	214.8	83.6	2.4	1.1	5,165	14,353
M	53.7	57.4	63.7	27.6	4.3	37.9	225.7	83.6	2.0	0.5	5,237	14,388
A	46.3	38.2	38.3	23.7	3.4	26.3	234.6	88.2	2.3	0.8	4,883	9,221
M	53.1	36.8	53.3	31.2	3.1	21.4	223.4	88.7	1.1	1.3	5,222	6,998
J	61.3	31.4	48.8	18.8	2.9	22.4	236.7	88.7	1.3	1.4	5,081	7,459
J	14.8	14.1	23.8	11.8	1.1	26.4	220.3	88.3	1.8	2.3	1,641	6,984
A	28.8	24.1	28.6	18.0	1.3	25.8	222.3	87.7	2.3	2.3	2,414	10,668
S	31.9	24.8	30.4	21.5	1.9	24.3	225.3	82.4	2.9	1.8	3,564	10,660
O	32.8	21.3	47.3	26.6	1.4	21.7	194.5	58.3	4.7	1.7	5,497	31,303
N	42.3	26.0	50.1	41.8	1.1	24.1	153.6	44.0	6.4	1.3	6,323	40,000
D	36.1	28.9	48.6	41.4	1.1	26.4	140.4	42.9	5.9	1.3	6,570	38,466

Note: For explanatory notes and sources, see page 151.

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CANADIAN STATISTICAL REVIEW

Feature Articles:
The 1961 Input-Output Table

OCTOBER 1963

VOLUME XXXIX NUMBER 10

DOMINION BUREAU OF STATISTICS, OTTAWA, CANADA

Manufacturing — October, 1943

Table 4b refrigerators and washing machines

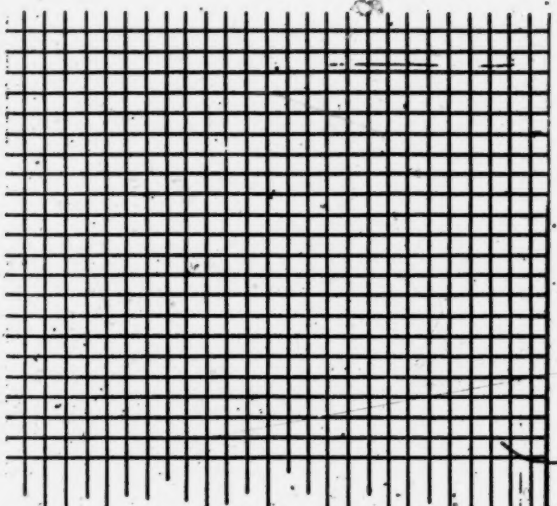
monthly averages or months	mechanical refrigerators: domestic types[1]: production	shipments[2]	factory stocks[3]	all types: imports	exports	domestic washing machines[4]: production[2]	shipments[2]	factory stocks[3]	imports	exports
	thousands									
1941	19.25	20.04	33.57	4.11	0.99	23.94	24.25	36.97	2.93	1.28
1942	22.39	21.48	51.33	4.64	0.71	24.86	24.85	38.21	2.66	1.01
1941 M	24.92	21.33	46.04	6.99	0.43	21.53	21.93	39.01	3.43	0.48
A	25.63	22.73	49.13	8.06	1.17	23.62	21.37	41.23	2.84	1.09
M	23.51	26.47	45.66	10.12	1.02	24.62	23.49	42.38	2.81	1.09
J	25.01	26.73	43.93	3.36	1.08	26.92	24.89	45.21	1.77	1.48
J	16.17	24.88	35.24	7.31	1.26	19.82	23.48	41.56	2.14	2.33
A	14.70	26.20	25.74	4.15	0.39	25.27	24.25	27.28	2.89	0.76
S	18.93	20.07	24.39	5.61	1.12	27.04	29.44	24.88	2.45	0.93
O	14.68	14.33	26.35	4.81	1.89	27.84	27.31	24.57	4.44	1.88
N	20.28	17.02	29.91	2.89	1.22	29.36	23.44	32.49	4.34	0.71
D	15.33	11.67	33.57	2.42	1.13	22.63	17.55	36.97	1.93	0.76
1942 J	19.30	14.65	38.13	4.73	1.02	22.47	21.23	37.51	2.39	0.53
F	24.42	18.98	43.66	7.77	0.89	22.74	21.88	38.37	3.73	0.34
M	27.70	22.27	49.09	4.89	0.10	25.01	23.84	40.34	2.81	0.68
A	25.76	24.56	50.29	5.61	0.68	21.18	21.53	39.69	2.21	0.79
M	25.49	28.79	47.01	7.18	1.05	23.27	22.84	40.12	2.51	2.88
J	28.21	28.73	44.48	5.73	1.12	24.16	25.14	39.14	2.17	1.35
J	19.06	25.02	40.51	6.26	0.79	21.53	25.82	35.84	1.94	0.79
A	18.35	22.62	37.47	1.17	0.71	23.21	20.31	37.94	1.88	0.98
S	21.90	22.54	34.16	2.48	0.37	28.26	28.74	35.56	1.49	1.01
O	21.85	17.34	40.68	6.65	0.42	23.54	29.81	30.00	1.98	0.65
N	20.46	14.84	46.30	1.20	0.85	26.23	25.21	31.30	1.22	1.35
D	18.53	15.53	51.33	0.88	0.30	26.49	30.88	30.21	1.35	1.39
1943 J	24.12	21.87	53.73	1.16	0.34	24.83	24.99	41.43	0.94	0.64
F	25.92	20.67	55.85	0.57	0.25	24.38	22.98	43.28	1.21	1.09
M	25.33	24.85	58.44	1.67	0.89	23.15	25.21	41.68	1.19	2.14
A	27.67	26.96	61.27	1.91	1.53	24.57	22.42	43.71	1.81	1.69
M	27.88	27.65	59.96	2.29	2.78	28.84	27.73	48.40	1.74	2.22
J	27.86	26.44	62.22	2.84	2.52	26.86	27.84	48.80	1.34	3.85
J	22.51	29.81	54.86		3.83	24.48	29.52	44.28		3.27
A	14.73	23.77	47.48		2.22	22.71	28.01	36.37		2.88

Table 5b radio and television receiving sets

monthly averages or months	producer's sales: radio receivers: total	home sets	portables	auto	combinations	record players	television receivers: total	Atlantic provinces	Quebec and Ontario	western provinces	imports: radio sets	television sets
	thousands											
1941	51.1	20.2	4.5	19.4	7.0	14.7	29.6	2.4	18.9	8.3	98.8	1.8
1942	57.4	21.0	1.8	25.4	9.2	17.1	33.0	2.8	22.1	10.3	68.3	1.4
1941 A	48.6	15.7	2.9	18.6	3.5	7.9	28.9	2.1	13.8	4.9	84.9	1.3
M	39.7	14.5	3.1	19.3	2.8	6.4	19.1	1.4	12.9	4.9	134.2	1.2
J	41.3	14.5	3.8	18.8	2.0	6.4	19.8	1.8	14.8	4.4	137.1	1.2
J	34.1	11.7	4.6	13.7	4.1	6.7	22.8	1.4	14.1	5.3	92.7	1.1
A	44.2	18.1	3.4	16.2	6.6	14.2	31.0	1.9	21.2	7.9	91.8	2.8
S	66.5	27.9	4.5	22.2	11.9	17.9	47.9	2.3	29.6	15.0	62.5	3.2
O	67.6	27.5	3.8	22.3	9.0	19.7	45.6	2.7	27.1	14.8	47.9	2.9
N	73.9	33.3	5.4	26.1	11.2	22.6	48.5	3.1	34.9	12.5	57.2	2.0
D	72.6	32.0	5.6	22.9	12.0	23.4	38.3	2.8	17.8	9.9	99.5	1.9
1942 J	52.4	16.4	1.7	25.2	9.1	10.8	32.3	2.5	19.9	9.9	41.9	2.1
F	47.2	16.0	0.8	23.7	6.8	13.5	38.8	2.6	19.4	8.8	48.1	2.3
M	55.7	17.5	1.2	30.3	6.6	10.1	38.2	2.7	19.5	8.0	44.4	1.9
A	36.7	14.3	1.5	15.7	5.3	7.5	25.9	2.4	14.8	4.7	44.7	0.5
M	47.7	14.9	1.7	26.5	4.6	9.5	27.3	1.9	13.8	8.5	101.8	0.6
J	38.0	16.7	2.1	27.0	4.2	8.6	22.4	2.4	21.7	8.3	72.1	0.4
J	41.5	13.8	1.6	19.5	6.6	11.2	30.0	1.9	19.9	8.2	92.1	1.3
A	41.6	19.6	1.3	10.8	9.9	15.7	34.1	2.0	22.1	10.0	72.7	1.3
S	62.8	26.7	1.4	19.5	15.2	19.3	32.0	2.3	21.6	14.9	67.0	0.6
O	78.3	27.9	1.8	25.5	13.0	24.4	51.8	2.4	32.3	14.2	64.4	1.0
N	94.9	36.7	2.0	40.4	14.7	23.9	58.0	2.4	38.5	14.1	78.5	1.7
D	80.5	31.0	2.7	31.1	14.7	41.0	29.4	2.0	18.0	9.4	86.2	1.5
1943 J	56.4	13.6	0.8	32.2	9.7	9.5	32.0	2.0	19.8	10.5	21.6	1.4
F	59.9	17.7	0.9	31.4	9.9	10.6	32.5	2.4	20.3	9.7	38.6	2.0
M	55.0	17.5	0.7	28.7	8.1	8.8	27.5	2.3	18.5	6.7	51.9	1.0
A	48.0	18.4	0.7	22.8	6.0	5.8	25.5	2.1	17.3	6.2	68.8	1.0
M	60.5	17.8	1.2	34.7	6.8	9.6	30.5	2.5	18.9	7.2	85.4	1.0
J	49.2	14.5	1.6	28.1	6.0	9.2	25.9	1.8	15.5	6.9	89.4	1.9
J	41.5	15.9	1.7	17.6	6.5	8.6	30.5	2.3	20.8	7.5		
A	48.2	20.4	1.5	16.7	9.6	12.9	38.8	2.8	24.9	11.6		

[1]End of period. [2]Does not include apartment-type machines. [3]Electric and other. [4]Gas types are included. [5]In some cases these shipments are not at the factory level, and stocks at beginning of month plus production less shipments do not equal stocks at end of month. Sources: Domestic Electric Refrigerators (43-001), Domestic Washing Machines (43-002), Radio and Television Receiving Sets (43-004), Trade of Canada, Imports (65-007); Exports (65-004), D.B.S.

CATALOGUE No.
11-003
MONTHLY



CANADIAN

STATISTICAL REVIEW

Feature Articles

National Accounts, Income and Expenditure, Third Quarter, 1963.

DECEMBER 1963

VOLUME XXXVIII NUMBER 12

DOMINION BUREAU OF STATISTICS, OTTAWA, CANADA

Table 49: refrigerators and washing machines

monthly averages or months	mechanical refrigerators: domestic types[4]: production	shipments[2]	factory stocks[3]	all types: imports	exports	domestic washing machines[5]: production[1]	shipments[2]	factory stocks[3]	imports	exports
	thousands					thousands				
1961	19.25	20.04	33.57	6.11	0.99	23.94	24.25	36.97	2.93	1.20
1962	22.59	21.48	51.33	4.04	0.71	24.86	24.85	38.21	2.86	1.01
1961 M	23.51	26.47	45.66	10.12	1.02	24.62	23.49	42.38	2.81	1.69
J	25.01	26.73	43.95	8.36	1.08	26.92	24.09	45.21	1.77	1.48
J	16.17	24.88	35.24	7.31	1.26	19.82	23.48	41.26	2.14	2.33
A	16.70	26.20	25.74	4.15	0.39	20.37	24.25	37.28	2.39	0.76
S	18.93	20.07	24.59	5.81	1.12	27.04	29.44	34.88	3.45	0.95
O	16.08	14.33	26.25	4.81	1.89	27.84	27.31	36.57	4.64	1.38
N	20.58	17.02	29.91	2.89	1.32	29.34	23.44	32.49	4.24	0.71
D	15.23	11.67	33.57	2.42	1.13	22.03	17.55	36.97	1.93	0.76
1962 J	19.30	16.65	38.13	4.73	1.02	22.47	21.23	37.51	2.39	0.53
F	24.42	18.90	43.86	7.77	0.89	22.74	21.88	38.37	3.73	0.34
M	27.70	22.27	49.09	4.89	0.10	25.01	23.04	40.34	2.01	0.68
A	25.76	24.56	50.30	5.61	0.68	21.18	21.83	39.69	2.21	0.79
M	25.49	28.79	47.01	7.18	1.05	23.27	22.84	40.12	2.51	2.08
J	28.21	28.73	46.48	5.93	1.12	24.16	25.14	39.14	2.17	1.35
J	19.06	25.02	40.51	6.26	0.79	21.53	25.52	35.04	1.94	0.79
A	18.35	22.62	37.47	1.17	0.71	23.21	30.31	27.94	1.60	0.98
S	21.90	22.54	36.16	2.48	0.37	28.36	30.74	25.56	1.49	1.01
O	21.85	17.34	40.68	0.65	0.42	33.54	29.81	30.00	1.98	0.65
N	20.46	14.84	46.30	1.20	0.85	26.33	25.21	31.30	1.22	1.55
D	18.53	15.53	51.33	0.80	0.50	26.49	20.58	38.21	1.55	1.39
1963 J	24.12	21.87	53.73	1.16	0.34	24.83	24.89	41.63	0.94	0.64
F	25.92	20.07	55.85	0.57	0.25	24.20	22.90	43.28	1.21	1.09
M	25.03	24.85	58.44	1.07	0.89	23.15	25.21	41.68	1.19	2.14
A	27.87	26.96	61.27	1.91	1.53	24.57	22.42	43.71	1.01	1.69
M	22.88	27.65	59.96	2.29	2.78	28.04	27.73	48.40	1.74	2.32
J	27.86	26.44	62.22	2.54	3.53	26.86	27.84	48.80	1.24	3.05
J	22.51	29.81	54.86	2.97	2.63	24.45	29.53	44.28	0.83	3.27
A	16.73	23.77	47.48	1.70	2.22	22.71	30.01	36.37	0.89	2.08
S	21.88	27.54	39.84		2.24	34.16	38.70	32.54		3.05
O	19.83	19.65	40.63		2.36	35.22	35.72	30.43		2.62

Table 50: radio and television receiving sets

monthly averages or months	producer's sales: radio receivers: total	home sets	portables	auto	combinations	record players	television receivers: total	atlantic provinces	Quebec and Ontario	western provinces	imports: radio sets	television sets
	thousands											
1961	51.1	20.2	4.5	19.4	7.0	14.7	29.6	2.4	18.9	8.3	90.0	1.8
1962	57.4	21.0	1.9	25.4	9.2	17.1	35.0	2.5	22.1	10.3	68.3	1.4
1961 J	43.3	14.5	5.8	18.0	3.0	6.6	19.8	1.3	14.0	4.4	137.1	1.2
J	34.1	11.7	4.6	13.7	4.1	6.7	22.9	1.4	16.1	5.3	92.7	1.1
A	44.2	18.1	3.4	16.2	6.6	14.2	31.0	1.9	21.2	7.9	91.8	2.8
S	64.5	27.9	4.5	22.2	11.9	17.9	47.9	3.3	29.6	15.0	62.5	3.2
O	61.6	27.5	2.8	22.3	9.0	19.7	45.6	2.7	27.1	14.8	87.5	2.0
N	75.9	33.3	3.4	26.1	11.2	32.6	60.5	3.1	34.9	12.5	87.2	2.0
D	78.6	32.0	5.6	22.9	12.0	33.4	58.3	2.6	17.8	9.9	99.5	1.9
1962 J	52.4	16.4	1.7	25.2	9.1	10.8	32.3	2.5	19.9	9.9	41.9	2.1
F	47.2	16.0	0.8	23.7	6.8	13.5	30.8	2.6	19.4	8.8	45.1	3.3
M	55.7	17.5	1.2	30.3	6.6	10.1	30.2	2.7	19.5	8.0	66.4	1.9
A	36.7	14.3	1.5	15.7	5.3	7.5	25.9	2.4	16.8	6.7	66.7	0.5
M	47.7	14.9	1.7	26.5	4.6	9.5	27.3	1.9	13.8	5.5	101.0	0.6
J	58.0	16.7	2.1	27.0	4.2	8.6	32.4	2.4	21.7	8.3	73.1	0.4
J	41.5	13.8	1.6	19.5	6.6	11.2	30.0	1.9	19.9	8.2	93.1	1.3
A	41.6	19.6	1.3	10.8	9.9	15.7	34.7	2.0	22.1	10.0	72.7	1.3
S	62.8	26.7	1.4	19.5	15.2	19.3	52.0	3.3	31.8	16.9	67.0	0.6
O	78.3	27.9	1.8	35.5	13.0	24.4	51.8	3.4	32.3	16.2	66.4	1.0
N	94.9	36.7	3.0	40.4	14.7	33.9	58.0	3.4	30.5	16.1	78.5	1.7
D	80.5	31.0	3.7	31.1	14.7	41.0	29.4	2.0	18.0	9.4	56.2	1.5
1963 J	56.4	13.5	0.8	32.2	9.7	9.5	33.8	2.6	19.8	10.5	21.6	1.4
F	59.9	17.7	0.9	31.4	9.9	10.6	32.5	2.4	20.3	9.7	38.6	2.0
M	55.0	17.5	0.7	28.7	8.1	8.8	27.5	2.3	18.5	6.7	51.9	1.8
A	48.0	18.4	0.7	22.8	6.0	5.8	25.5	2.1	17.3	6.2	86.9	1.8
M	60.5	17.8	1.2	34.7	6.8	9.6	28.5	2.5	18.9	7.2	83.4	1.6
J	49.2	16.3	1.6	25.1	6.0	9.2	25.9	1.5	16.5	8.9	89.4	1.9
J	41.5	15.9	1.7	17.6	6.5	8.6	30.9	2.2	20.8	7.5	121.7	1.2
A	45.2	20.4	1.5	16.7	9.6	12.9	33.8	3.3	24.9	11.6	92.4	2.4
S	86.7	30.8	2.0	37.7	16.2	25.5	56.2	5.1	33.3	17.8		
O	105.2	34.9	1.5	53.6	15.2	24.5	56.5	4.1	33.8	18.5		

[1]End of period. [2]Does not include apartment-type machines. [3]Electric and other. [4]Gas types are included. [5]In some cases these shipments are out at the factory level, and stocks at beginning of month plus production less shipments do not equal stocks at end of month. Sources: Domestic Electric Refrigerators (43-001), Domestic Washing Machines (43-002), Radio and Television Receiving Sets (43-004), Trade of Canada, Imports (65-007), Exports (65-004), D.B.S.

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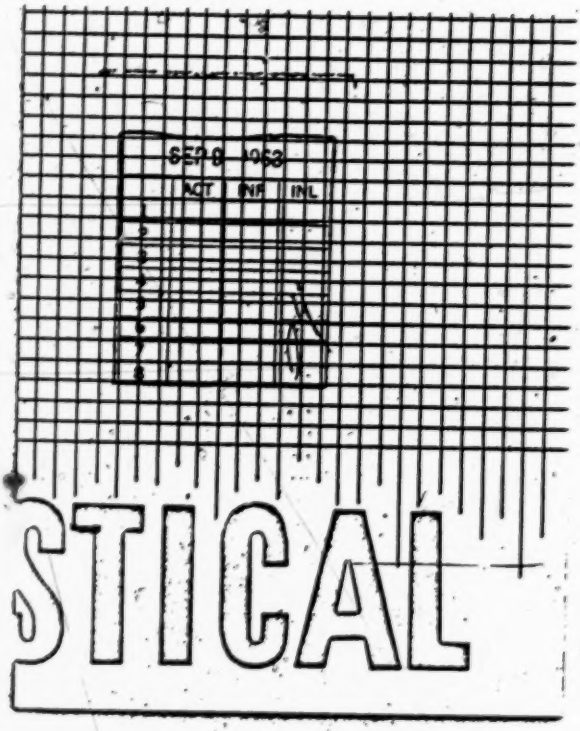
11-502
OCCASIONAL



CANADIAN STATISTICAL REVIEW

This publication replaces the 1959 Supplement (No. 4) of the Canadian Statistical Review. It contains annual figures only.

HISTORICAL SUMMARY

1963 EDITION

DOMINION BUREAU OF STATISTICS, OTTAWA, CANADA

FOREWORD

This is the fifth volume in a series of supplements to the Canadian Statistical Review. The first four volumes were issued biennially starting with 1953, the last being for 1959. The present volume differs from the first four in that it is an Occasional Paper, i.e., it is to be issued from time to time as the need arises rather than biennially. It also differs in that it contains only annual data whereas the earlier volumes contained both annual and monthly data. A selection of the important monthly figures is now carried in another publication called the "Annual Supplement" to the Canadian Statistical Review. (DBS Catalogue No. 11-206).

The present volume is similar to the others in that its contents, table headings and table numbers (with a few exceptions) are the same as those in the tabular section of the Review. As formerly this publication is to be used in conjunction with the latest monthly issue of the Review; to facilitate comparison with monthly figures, most of the annual data are on a monthly basis, i.e., expressed as an average per month for the year, and this is so indicated in the table headings. However, in some series where it is customary to use the total for the year rather than the monthly average the totals are presented; to make their levels comparable with monthly figures, the totals should be divided by twelve, or by four in case of quarterly data. Where they occur, these departures are shown in the table headings as "yearly totals" or "years" or are indicated in the footnotes.

For easier reference, the footnotes are given at the bottom of each table. Most of the footnotes have been expanded from previous issues and give a brief description of the nature of the data, its method of collection and changes which have occurred over time.

All the tables include 1962 as the last year and extend to 1926 or as far back as data are available. The figures for the current years were the latest available early in 1963 and some of them are still subject to revision.

The present volume was prepared in the Current Business Indicators Section, National Accounts and Balance of Payments Division of the Dominion Bureau of Statistics.

WALTER E. DUFFETT,
Dominion Statistician.

TABLE 50. Radio and Television Receiving Sets

Monthly average	Producer's sales										Imports	
	Radio receivers					Record players	Television receivers				Radio sets	Television sets
	Total	Home sets	Portables	Auto	Combinations		Total	Atlantic Provinces	Quebec and Ontario	Western Provinces[1]		
	Thousands											
1930	18.6	16.3	–		2.2	..	–	–	–	–	..	–
1931	23.6	22.6	0.1		1.1	..	–	–	–	–	0.9	–
1932	11.1	10.7	–		0.4	..	–	–	–	–	0.7	–
1933	9.4	7.8	0.8		0.7	..	–	–	–	–	..	–
1934	13.9	12.8	1.1		0.1	..	–	–	–	–	..	–
1935	15.0	14.4	1.4		–	..	–	–	–	–	..	–
1936	20.7	19.0	1.6		0.1	..	–	–	–	–	..	–
1937	22.3	20.2	1.9		0.1	..	–	–	–	–	..	–
1938	20.9	18.9	1.8		0.1	..	–	–	–	–	3.3	–
1939	20.9	20.7	1.8		0.4	..	–	–	–	–	4.8	–
1940	26.6	23.1	1.4	2.4	0.7	..	–	–	–	–	2.8	–
1941	23.3	20.1	1.3	2.5	1.4	..	–	–	–	–	0.2	–
1942	17.4	13.4	0.3	3.6	1.3	..	–	–	–	–	0.3	–
1943	1.8	..	..	..	..	..	–	–	–	–	0.3	–
1944	–	..	..	..	..	..	–	–	–	–	0.2	–
1945	2.7	..	..	..	..	..	–	–	–	–	0.1	–
1946	47.4	41.3	0.4	1.8	4.0	..	–	–	–	–	2.5	–
1947	49.7	31.8	1.8	6.3	9.8	..	–	–	–	–	0.3	–
1948	49.7	31.9	2.2	4.8	9.8	..	–	–	–	–	0.2	–
1949	60.4	36.1	3.0	11.4	7.8	..	0.2	–	0.2	–	4.5	–
1950	63.3	38.2	4.1	10.7	10.2	..	2.5	–	2.5	–	3.9	–
1951	47.9	27.6	2.1	10.2	7.9	..	2.3	–	2.3	–	4.7	–
1952	47.4	29.6	2.0	8.7	7.1	..	11.4	–	11.4	–	6.9	–
1953	51.7	36.6	2.6	15.2	5.4	..	30.5	0.1	28.8	1.7	3.0	1.4
1954	49.6	35.7	1.8	9.1	4.0	..	52.0	2.3	38.5	11.2	1.3	1.6
1955	60.6	38.1	2.9	16.9	2.9	..	63.7	4.3	42.5	17.0	2.3	4.5
1956	58.1	32.3	4.6	18.5	2.6	17.1	49.8	4.1	32.5	13.0	6.5	6.7
1957	60.1	33.7	5.4	19.6	4.4	20.3	38.1	2.8	34.4	10.9	13.2	6.3
1958	57.9	28.6	7.0	17.9	4.3	18.4	31.0	2.9	21.6	16.5	24.0	1.2
1959	64.2	30.0	8.6	19.9	5.6	16.8	33.7	3.3	20.5	10.0	42.0	1.1
1960	60.8	33.2	7.6	19.8	5.3	16.5	28.3	2.7	17.6	7.9	60.9	1.3
1961	51.1	28.2	4.3	18.4	7.0	14.7	19.6	2.4	10.9	6.3	56.0	1.8
1962	57.4	21.0	1.8	25.4	9.2	17.1	34.0	2.5	22.1	10.3	65.3	1.4

[1] Includes Lakehead area, (Port Arthur and Fort William) to the end of 1958.

Sources: Monthly reports "Radio and Television Receiving Sets, Including Record Players", Catalogue No. 63-004, and "Trade of Canada, Imports", Catalogue No. 65-007, DBS.

CATALOGUE No. 43-004 MONTHLY

DOMINION BUREAU OF STATISTICS

OTTAWA - CANADA

Published by Authority of the Minister of Trade and Commerce

Vol. 18, No. 11 Price: $1.00 per year

RADIO AND TELEVISION RECEIVING SETS
(Including Record Players)

NOVEMBER 1963

TABLE 1. Sales of "Made-in-Canada" Radio Receiving Sets

	Auto	Portables	Home sets	Radio phonograph combinations	Total
			number of units		
November 1963					
Domestic sales in:					
Atlantic provinces ...	190	120	2,540	691	3,541
Quebec	964	159	8,523	4,612	14,258
Ontario	43,126	1,146	12,004	4,724	61,000
Manitoba	246	30	2,259	729	3,264
Saskatchewan	77	18	850	515	1,460
Alberta	104	52	2,204	915	3,275
British Columbia	170	28	2,593	1,180	3,971
Total domestic sales	44,877	1,553	30,973	13,366	90,769
Export sales	-	-	12	3,088	3,100
Total sales	44,877	1,553	30,985	16,454	93,869
Eleven months ended November 1963					
Domestic sales in:					
Atlantic provinces ...	2,384	1,008	18,887	4,432	26,711
Quebec	12,834	3,062	72,393	30,558	118,847
Ontario	318,868	7,706	84,885	34,192	445,651
Manitoba	4,123	553	14,833	5,558	25,067
Saskatchewan	1,743	283	7,755	4,352	14,133
Alberta	2,561	739	15,721	7,204	26,225
British Columbia	2,691	782	17,003	8,765	29,241
Total domestic sales	345,204	14,133	231,477	95,061	685,875
Export sales	194	12	3,050	15,318	18,574
Total sales	345,398	14,145	234,527	110,379	704,449

Industry and Merchandising Division

January 1964
6523-542

ROGER DUHAMEL, F.R.S.C., Queen's Printer and Controller of Stationery, Ottawa

TABLE 4. Production of Radio and Television Receiving Sets and Record Players

	November 1963	Eleven months ended November 1963
	number of units	
Radio receiving sets:		
Auto	49,281	291,217
Portables	6,277	26,146
Home sets	31,027	254,205
Radio phonograph combinations	16,693	125,119
Totals	103,278	696,687
Television receiving sets	47,132	422,710
Record players:		
With amplifier	23,796	172,091
Without amplifier	-	-
Totals	23,796	172,091

TABLE 5. Producers sales of Imported(1) Radio and Television Receiving Sets

	November 1963	Eleven months ended November 1963
	number of units	
Radio receiving sets:		
Auto	1,417	14,276
Portables	6,578	64,322
Home Sets	1,722	12,007
Radio phonograph combinations	71	1,259
Totals	9,788	91,864
Television receiving sets	61	882

(1) As reported by respondents only - see January, 1963 report; figures reported in this table are not included in sales figures elsewhere in this report.

TABLE 6. Domestic sales of "Made-in-Canada" Radio Receiving Sets, by Months, 1962 and 1963

	Auto		Portables		House sets		Radio phonograph combinations	
	1962	1963	1962	1963	1962	1963	1962	1963
	number of units							
January	24,987	32,210	1,729	821	16,360	13,646	8,515	8,272
February ...	23,696	31,358	754	892	15,943	17,663	6,362	8,202
March	30,311	28,686	1,249	707	17,545	17,508	6,430	7,109
April	15,726	22,848	1,467	691	14,262	18,400	5,182	4,581
May	26,363	34,557	1,729	1,232	14,915	17,744	4,123	5,819
June	26,968	25,134	2,141	1,552	16,670	14,729	4,060	5,537
July	19,511	17,567	1,642	1,653	13,754	14,742	6,454	5,716
August	10,663	16,695	1,321	1,499	19,618	20,408	9,321	8,978
September ..	19,499	37,664	1,378	2,029	26,739	30,801	13,486	14,094
October	35,548	53,608	1,841	1,506	27,889	34,863	11,764	13,387
November ...	40,433	44,877	3,026	1,553	36,732	30,973	12,808	13,366
December ...	31,053		3,702		30,986		13,951	
Totals ...	304,758		21,979		251,413		102,456	
Year to date	273,705	345,204	18,277	14,133	220,427	231,477	88,505	95,061

TABLE 7. Domestic sales of "Made-in-Canada" Television Receiving Sets and Record Players, by Months, 1962 and 1963

	Record players		Television receiving sets	
	1962	1963	1962	1963
	number of units			
January	10,781	9,532	32,342	32,965
February	13,542	10,584	30,833	32,473
March	10,102	8,844	30,204	27,527
April	7,437	5,728	25,874	25,509
May	9,491	9,626	21,256	28,496
June	8,588	9,200	32,370	25,865
July	11,153	8,617	29,955	30,532
August	15,682	12,946	34,091	38,789
September	19,324	25,495	52,027	56,329
October	24,387	24,462	51,849	56,462
November	33,890	27,844	50,011	48,661
December	40,929		29,356	
Totals	205,306		420,168	
Year to date	164,377	152,878	390,812	403,608

TABLE 10. Production and Shipments of Television Picture Tubes(1), by Months, 1962 and 1963

	Production		Shipments			
	Units		Units		Value	
	1962	1963	1962	1963	1962	1963
	number				dollars	
January	53,666	58,580	49,151	54,166	1,012,700	995,490
February	55,883	54,498	53,102	60,417	1,109,674	1,165,968
March	64,770	60,420	56,789	54,671	1,180,971	1,046,132
April	52,462	60,588	53,705	51,571	1,104,603	1,012,689
May	51,964	54,068	49,706	57,658	1,053,8[illegible]	1,103,649
June	57,472	57,932	52,511	54,421	1,145,0[illegible]	1,136,768
July	38,413	31,156	41,572	37,148	847,700	753,667
August	46,925	44,652	45,407	45,475	937,855	942,315
September	59,640	60,717	64,257	65,365	1,291,785	1,289,200
October	65,952	83,525	66,317	69,611	1,296,446	1,317,268
November	66,125	76,853	67,741	66,663	1,329,697	1,169,340
December	66,903		62,923		1,210,344	
Totals	680,175		663,181		13,520,623	
Year to date	613,272	642,987	600,258	617,166	12,310,279	11,932,486

(1) Includes rebuilt tubes.

TABLE 11. Imports(1) of Specified Electronic Equipment

	August 1963		Eight months ended August 1963	
	No.	$	No.	$
Radio phonograph sets	1,076	100,076	7,211	653,153
Radio receiving sets, transistor type, n.e.s.	67,908	660,864	454,718	4,490,849
Radio receiving sets, n.e.s.	23,454	213,897	99,027	1,331,394
Electronic tubes, n.o.p.	614,547	808,513	7,231,775	9,321,749
Electronic tube parts n.o.p.	-	268,294	-	2,804,005
Television picture tubes	(2)	(2)	(2)	(2)
Semi-conductors except transistors and parts of semi-conductors ...	-	170,138	-	2,366,765
Transistors	162,666	154,411	1,816,598	1,757,572
Glass bulbs for electronic tubes	-	136,901	-	1,816,117
Television receiving sets	2,422	346,747	12,808	1,745,183

(1) Customs clearance, latest available.
(2) Included with electronic tubes, n.o.p.

TABLE 12. Exports(1) of Specified Electronic Equipment

	October 1963		Ten months ended October 1963	
	No.	$	No.	$
Radio receiving sets	2,490	611,781	20,495	3,599,235
Television receiving sets	1,212	303,273	4,382	827,009
Electronic tubes, semi-conductors and parts	-	121,030	-	1,784,944

(1) Customs clearance, latest available.

DEFENDANT'S EXHIBIT NO. 218.

ZENITH SHARE OF DOMESTIC MARKET.

		Factory Shipments		
Television		Zenith	Industry	Zenith % of Industry
1929	Year	1002985	6089787	
	1/1 to 5/31	363117	1992652	
	6/1 to 12/31	639818	4097105	15.616
1930		997007	5541467	17.992
1931		1041239	5906338	17.638
1932		1104967	6322906	17.476
1933	1/1 to 5/31	585948	2468436	21.712
Radio				
1929	Year	1201635	9733270	
	1/1 to 5/31	382227	2961635	
	6/1 to 12/31	869408	6771635	12.839
1930		1268982	10306523	12.316
1931		1291059	11392518	11.332
1932		1244626	11671842	10.664
1933	1/1-5/31	476684	3684610	12.937

Excerpts from Market Research and Sales Statistics Dept. reports.

FINAL MONTHLY REPORT (4-5 WEEK MONTHS, DOMESTIC AND EXPORT MARKETS)

STATUS OF ZENITH AND INDUSTRY PRODUCTION, SALES AND INVENTORY UNITS, ZENITH PERCENTAGE OF INDUSTRY, AND PERCENT CHANGES

PRODUCT: Total Television Cumulative

REPORT NO.: MT-100-1A

MONTH	ZENITH					INDUSTRY					ZENITH PERCENTAGE OF INDUSTRY		PERCENTAGE CHANGES FROM PREVIOUS YEAR			
	FACTORY			DISTRIBUTOR		FACTORY			DISTRIBUTOR				PRODUCTION		SALES TO DEALERS	
	Production	Inventory	Shipments	Sales To Dealers	Inventory	Production	Inventory	Shipments	Sales To Dealers	Inventory	Unit	Sales To Dealers	Month	Inventory	Month	Year to Date
1959 JANUARY	84,127	7,904	77,867	78,885	38,213	437,086	368,810	409,815	370,680	715,977	19.2	21.3	+31.0	+ 0.7	+31.6	-32.6
FEBRUARY	172,205	6,464	167,354	182,186	30,304	896,516	398,713	861,553	789,648	786,906	19.2	19.5	+92.9	+11.9	+45.9	-12.7
MARCH	258,340	5,665	250,686	239,860	51,307	1,300,080	383,851	1,340,836	1,288,096	787,865	18.6	19.0	+35.8	+13.9	+36.6	- 7.3
APRIL	330,312	2,216	318,344	294,189	65,057	1,778,801	435,148	1,668,965	1,568,860	788,419	18.0	19.0	+32.7	+18.8	+41.7	- 1.3
MAY	373,948	6,688	363,117	334,482	88,348	2,221,718	488,888	2,082,682	1,884,481	882,806	16.9	18.3	+46.1	+28.8	+38.3	+ 3.6
JUNE	479,084	7,883	467,016	467,308	84,898	2,781,726	888,841	2,780,981	2,385,748	881,880	17.0	17.6	+82.2	+22.4	+44.1	+16.1
JULY	587,087	4,227	5[illegible]	488,090	84,236	3,[illegible]	487,[illegible]	3,[illegible]	2,[illegible]	882,[illegible]	16.8	17.6	+66.1	+28.8	+48.6	+18.8
AUGUST	648,880	8,427	807,[illegible]	578,240	78,898	3,[illegible]	448,[illegible]	3,[illegible]	2,[illegible]	888,[illegible]	17.8	17.8	+81.8	+28.7	+47.5	+18.5
SEPTEMBER	781,473	5,796	728,[illegible]	728,857	88,[illegible]	4,[illegible]	894,[illegible]	4,[illegible]	3,[illegible]	888,[illegible]	17.6	18.2	+62.1	+88.7	+46.8	+18.6
OCTOBER	880,778	7,805	816,176	831,381	88,888	5,[illegible]	398,[illegible]	4,[illegible]	4,[illegible]	880,[illegible]	16.6	18.8	+89.7	+87.7	+44.6	+80.4
NOVEMBER	966,908	7,739	926,[illegible]	896,847	88,[illegible]	6,[illegible]	888,[illegible]	6,[illegible]	5,[illegible]	788,[illegible]	16.8	16.4	+88.6	+89.6	+41.2	+21.0
DECEMBER	1068740	4,184	1000[illegible]	947,884	75,888	6,[illegible]	418,[illegible]	6,[illegible]	6,[illegible]	782,[illegible]	16.6	16.4	+40.4	+89.0	+40.4	+18.8
1960 JANUARY	110,888	8,822	107,172	88,884	88,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	21.8	22.8	+88.8	+88.8	+80.8	+18.8
FEBRUARY	211,800	8,707	208,[illegible]	188,288	88,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20.8	19.0	+88.2	+84.8	+11.8	+14.7
MARCH	322,861	8,[illegible]	808,[illegible]	278,888	[illegible]	[illegible]	[illegible]	1,[illegible]	[illegible]	[illegible]	19.8	18.8	+88.8	+18.6	+14.1	+17.8
APRIL	488,888	[illegible]	478,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	20.1	19.8	+88.8	+[illegible]	+[illegible].0	+18.8
MAY	448,888	17,[illegible]	488,[illegible]	888,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	+[illegible]	+[illegible]	+88.8	+17.8
JUNE	881,788	8,888	818,847	488,817	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	+18.8	+11.7
JULY	881,888	8,872	884,[illegible]	887,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	+[illegible]	+[illegible]	+11.8	+18.8
AUGUST	888,871	8,894	888,[illegible]	818,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEPTEMBER	788,888	7,888	788,[illegible]	788,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	+ 4.8	[illegible]	[illegible]
OCTOBER	888,788	7,881	888,[illegible]	888,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	+ 8.7	[illegible]	[illegible]
NOVEMBER	882,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	17.8	[illegible]	[illegible]	[illegible]	[illegible]
DECEMBER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Defendant's Exhibit No. 218.

2622

FINAL MONTHLY REPORT (4-5 WEEK MONTH, DOMESTIC AND EXPORT MARKETING)

STATUS OF ZENITH AND INDUSTRY PRODUCTION, SALES AND INVENTORY UNITS, ZENITH PERCENTAGE OF INDUSTRY, AND PERCENT CHANGES

Product: Total Television Cumulative

Report No.: MT-100-1A

Month	Zenith					Industry					Zenith Percentage of Industry		% from Previous Year			
	Factory			Distributors		Factory			Distributors				Production		Sales to Dealers	
	Production	Inventory	Shipments	Sales to Dealers	Inventory	Production	Inventory	Shipments	Sales to Dealers	Inventory	Prod.	Sales to Dealers	Units	Dollars	Units	Dollars
1961																
JANUARY	86,200	6,748	76,424	80,543	55,699	367,925	403,699	364,136	403,570	602,235	23.4	20.0	-21.9	-20.1	-25.4	- 4.1
FEBRUARY	179,766	7,695	162,278	159,146	68,549	812,353	811,393	780,385	832,275	589,588	22.1	19.1	-15.2	-21.3	-11.8	-17.5
MARCH	294,380	5,761	272,520	254,957	82,000	1,309,811	373,198	1,293,683	1,332,872	602,388	22.5	19.1	- 6.2	-17.1	- 6.7	-10.1
APRIL	372,130	11,948	340,858	321,965	94,305	1,715,619	448,842	1,682,748	1,680,672	582,788	22.7	19.1	- 8.8	-14.9	- 5.0	- 9.5
MAY	449,927	25,109	408,168	379,988	88,971	2,186,018	529,699	2,106,688	2,089,770	597,988	20.6	18.7	+ 1.0	-10.6	- 2.3	- 5.9
JUNE	582,044	8,488	505,230	450,647	117,954	2,808,136	521,344	2,615,243	2,693,744	733,888	19.4	18.1	+ 1.9	- 5.5	- 1.2	- 4.1
JULY	599,120	9,207	583,488	526,478	78,878	3,388,524	466,485	3,208,728	3,208,388	748,588	18.8	18.1	+ 3.1	- 1.5	- 2.0	- 2.6
AUGUST	708,871	9,348	650,111	608,084	118,888	3,699,188	456,313	3,519,481	3,345,805	787,188	19.2	18.0	+ 7.5	- .2	+ 1.8	- .9
SEPTEMBER	836,201	5,857	779,115	748,651	203,388	4,393,768	417,146	4,188,981	4,089,107	830,538	19.0	18.3	+ 6.8	+ .5	+ 1.2	+ .3
OCTOBER	939,934	9,205	872,778	840,592	99,084	5,011,583	481,388	4,808,184	4,638,084	815,888	18.7	18.1	+ 5.8	+ 2.9	+ 2.2	+ .8
NOVEMBER	1033,172	9,885	958,488	936,361	96,288	5,597,535	489,383	5,387,215	5,178,858	823,688	18.5	18.1	+ 7.4	+ 5.6	+ 2.0	+ 1.7
DECEMBER	1116,953	5,288	1042238	1019831	90,452	6,177,197	436,991	5,968,338	5,778,581	770,648	18.1	18.0	+ 8.3	+ 8.2	+ 2.6	+ 2.2
1962																
JANUARY	209,636	11,088	200,875	181,117	70,188	488,869	439,389	488,888	485,834	781,998	22.4	22.4	+27.8	+32.9	-29.3	+19.4
FEBRUARY	218,425	9,344	208,898	188,907	83,378	1,080,383	484,888	1,078,888	995,111	788,418	21.8	20.8	+21.9	+28.8	+25.0	+18.8
MARCH	350,985	6,383	337,888	311,874	101,888	1,888,614	448,888	1,847,888	1,887,887	808,888	20.4	19.8	+19.1	+28.0	+28.3	+17.8
APRIL	448,088	8,888	436,188	378,887	128,788	2,900,801	848,878	2,888,477	2,888,788	888,318	20.1	18.8	+18.8	+28.8	+17.1	+15.8
MAY	607,977	8,833	678,888	520,284	181,148	3,674,848	884,887	3,488,888	3,888,888	888,888	18.8	18.8	+28.8	+28.4	+28.8	+18.8
JUNE	618,878	8,888	578,888	581,788	181,884	4,888,801	887,887	4,888,888	4,788,888	1,884,148	18.8	18.8	+28.8	+27.8	+28.8	+ 8.8
JULY	887,880	8,881	888,888	888,878	884,888	5,881,818	488,188	5,488,788	5,178,888	1,817,748	18.4	18.8	+18.8	+14.8	+28.8	+ 8.4
AUGUST	772,948	10,387	788,888	888,878	884,888	6,158,888	488,488	5,887,188	5,888,888	888,878	18.7	18.7	+ 8.8	+11.7	+18.8	+ 8.7
SEPTEMBER	888,481	8,478	888,887	884,788	888,888	6,884,188	488,788	6,728,888	6,888,888	1,817,788	18.4	18.8	+ 2.1	+18.7	+18.8	+ 8.8
OCTOBER	888,181	8,848	884,881	888,888	888,888	8,884,888	441,888	8,888,888	8,884,888	887,888	18.1	18.8	+ 8.8	+88.4	+88.4	+ 8.7
NOVEMBER	1087881	8,888	8888188	[illegible]	88,881	8,881,881	888,888	8,888,887	8,888,887	887,881	17.8	18.8	+ 8.8	+8.8	+ [illegible]	+ 8.8
DECEMBER	1184881	8,888	1888887	[illegible]	88,888	8,871,188	888,881	8,888,888	8,888,888	888,888	17.8	17.8	+ 8.8	+8.7	+ 8.8	+ 8.1

(2) Includes Export

FINAL MONTHLY REPORT (4 - 5 WEEK MONTHS, DOMESTIC AND EXPORT MARKETS)

STATUS OF ZENITH AND INDUSTRY PRODUCTION, SALES AND INVENTORY UNITS, ZENITH PERCENTAGE OF INDUSTRY, AND PERCENT CHANGES

Product No. Total Television Cumulative

Report No. MT-100-1A

MONTH	ZENITH					INDUSTRY					ZENITH PERCENTAGE OF INDUSTRY		± % from Previous Year			
	FACTORY			DISTRIBUTORS		FACTORY			DISTRIBUTORS				PRODUCTION		SALES TO DEALERS	
	* Production	* Inventory	Shipments	Sales To Dealers	Inventory	* Production	* Inventory	Shipments	Sales To Dealers	Inventory	* Prod.	Sales To Dealers	* Zenith	* Industry	* Zenith	* Industry
1962																
JANUARY	109,636	11,089	100,675	84,117	70,138	488,889	439,[illegible]	[illegible]	665,836	781,566	22.4	23.6	+27.2	+28.2	+29.3	+15.4
FEBRUARY	218,429	9,344	208,634	198,907	85,576	1,030,383	884,[illegible]	1,008,852	987,111	748,410	21.2	20.2	+21.5	+28.8	+25.0	+18.8
MARCH	350,986	4,323	337,948	311,674	101,248	1,689,614	846,[illegible]	1,647,686	1,667,987	808,208	20.8	19.9	+19.1	+29.0	+22.3	+17.8
APRIL	442,085	8,659	418,159	376,527	888,705	2,200,201	845,[illegible]	2,059,477	1,838,789	835,[illegible]	20.1	19.[illegible]	+19.8	+28.8	+17.1	+15.0
MAY	507,977	8,633	478,882	430,784	131,145	2,674,848	834,607	2,601,488	2,843,529	888,528	19.0	19.2	+12.9	+22.4	+13.4	+10.5
JUNE	612,276	8,299	575,535	531,795	131,054	3,295,501	827,603	3,089,814	3,784,058	1,034,146	18.6	18.5	+13.0	+17.8	+18.0	+ 9.3
JULY	667,950	8,251	630,573	601,875	114,458	3,631,910	487,[illegible]	3,[illegible],758	3,173,566	1,017,745	18.4	19.0	+11.8	+14.0	+14.3	+ 9.4
AUGUST	772,945	10,327	728,905	689,673	124,218	4,132,603	487,481	3,947,118	3,698,017	983,672	18.7	18.7	+ 9.0	+11.7	+13.8	+ 9.7
SEPTEMBER	895,481	6,479	850,237	824,756	108,580	4,984,180	489,[illegible]	4,712,256	4,423,117	1,017,708	18.6	18.6	+ 7.1	+10.7	+11.3	+ 9.2
OCTOBER	986,191	8,843	936,661	928,009	100,625	5,454,088	441,[illegible]	5,353,910	5,094,680	947,600	18.1	18.4	+ 4.9	+ 8.4	+10.5	+ 8.7
NOVEMBER	1057621	8,299	1014184	1031181	82,084	5,961,361	399,[illegible]	5,794,388	5,685,887	857,561	17.8	18.5	+ 3.2	+ 8.3	+10.1	+ 9.5
DECEMBER	1154841	3,522	1104987	1150480	77,936	6,471,180	372,551	6,322,808	6,301,340	750,038	17.8	17.9	+ 3.4	+ 6.7	+ 9.0	+ 9.1
1963																
JANUARY	112283	10,919	102,403	110,427	55,086	484,415	382,183	486,676	503,821	656,388	23.2	21.9	+ 2.4	- 0.9	+ 6.1	+ 6.8
FEBRUARY	234,547	8,681	221,956	217,375	72,442	1,042,348	408,778	980,571	1,039,880	634,084	22.5	20.9	+ 7.4	+ 1.2	+ 9.3	+ 5.3
MARCH	398,003	6,526	380,442	335,896	109,009	1,738,781	370,[illegible]	1,681,463	1,641,617	735,379	22.9	20.5	+15.4	+ 2.9	+ 7.7	+ 4.7
APRIL	484,749	12,790	458,425	408,853	133,013	2,287,418	471,881	2,106,947	2,086,788	781,697	21.2	19.8	+ 9.7	+ 4.0	+ 7.0	+ 5.4
MAY	573,509	22,666	535,948	480,700	113,258	2,794,917	588,[illegible]	2,[illegible],436	2,414,[illegible]	748,871	20.5	19.9	+12.9	+ 4.5	+ 11.8	+ 7.6
JUNE	695,999	8,373	661,052	598,306	136,350	3,459,981	543,731	3,161,293	2,996,806	898,018	20.1	20.2	+13.7	+5.0	+12.5	+8.5
JULY	763,161	22,345	725,963	669,894	128,366	3,844,212	474,488	3,600,749	3,405,249	869,033	19.9	19.7	+14.3	+5.8	+11.3	+7.3
AUGUST	887,933	22,297	832,519	762,225	149,048	4,409,410	500,356	4,118,601	3,964,670	857,484	20.1	19.3	+14.8	+ 6.7	+10.5	+ 7.1
SEPTEMBER		11,269	968,657	916,012	131,883	5,186,615	451,084	4,910,357	4,758,191	888,688	19.7	19.3	+14.[illegible]	+ 8.7	+11.1	+ 7.8
OCTOBER	1021499 1121639	14,450	1060600	1025310	122,118	5,818,908	453,294	5,517,065	5,428,031	782,567	19.3	18.9	+15.7	+13.7	+10.5	+ 7.8
NOVEMBER	1228724	[illegible],084	1165590	1130431	114,630	6,440,308	442,256	6,125,517	6,068,862	750,108	19.1	18.6	+15.1	+ 8.2	+ 9.6	+ 7.1
DECEMBER	1332576	[illegible],707	186,5155	1283995	108,615	7,130,351	484,052	6,753,248	6,828,383	618,308	18.7	18.5	[illegible].4	+10.2	+11.8	+ 8.4

8519 *Includes Export

Market Research And Sales Statistics

Defendant's Exhibit No. 218. 2624

FINAL MONTHLY REPORT (4-5 WEEK MONTHS, DOMESTIC AND EXPORT MARKETS)

STATES OF ZENITH AND INDUSTRY PRODUCTION, SALES AND INVENTORY UNITS, ZENITH PERCENTAGE OF INDUSTRY, AND PERCENT CHANGES

PRODUCT: Total Radio (Less Radio-Phonograph Combs) Cumulative

REPORT NO.: MR-100-1.1A

MONTH	ZENITH					INDUSTRY					ZENITH PERCENTAGE OF INDUSTRY		PERCENTAGE CHANGE FROM PREVIOUS YEAR			
	FACTORY			DISTRIBUTOR		FACTORY			DISTRIBUTOR				PRODUCTION		SALES TO DEALERS	
	Production	Inventory	Shipments	Sales To Dealers	Inventory	Production	Inventory	Shipments	Sales To Dealers	Inventory	Prod.	Sales To Dealers	Zenith	Industry	Zenith	Industry
TOTAL JANUARY	86,715	21,596	71,842	62,713	108,636	704,685	625,696	576,801	614,181	1,008,078	12.3	10.2	+49.5	+18.4	+15.1	+35.0
FEBRUARY	150,696	9,651	154,516	123,736	135,663	1,257,519	614,535	1,257,749	1,154,388	1,159,773	11.4	10.7	+36.7	+24.7	+26.4	+52.2
MARCH	248,371	14,376	239,070	201,084	135,979	2,228,854	736,405	1,985,037	1,796,014	1,256,576	11.0	11.2	+27.1	+27.6	+29.9	+54.5
APRIL	314,691	17,480	321,691	263,898	136,432	2,921,691	828,864	2,904,718	2,163,848	1,367,232	11.0	12.2	+29.6	+28.9	+28.6	+40.0
MAY	357,388	17,265	338,227	340,888	107,014	3,418,681	888,649	2,961,636	2,898,483	1,415,534	10.8	13.1	+25.6	+29.0	+28.7	+31.7
JUNE	452,512	13,476	436,142	439,923	87,710	4,207,380	814,187	5,818,576	3,364,898	1,506,178	10.8	13.1	+32.8	+33.4	+34.4	+36.9
JULY	512,948	14,183	488,986	518,988	78,083	4,781,780	734,271	4,484,388	4,008,402	1,525,306	10.7	13.0	+29.5	+34.3	+35.1	+36.6
AUGUST	608,743	20,515	598,708	594,842	74,940	5,511,699	889,888	5,982,162	4,813,808	1,515,586	11.0	12.4	+31.7	+28.2	+31.0	+25.0
SEPTEMBER	782,881	18,350	736,130	725,880	100,886	6,775,606	900,334	6,681,348	5,979,688	1,615,018	11.8	12.1	+27.1	+27.8	+30.8	+24.5
OCTOBER	863,617	15,963	815,823	854,822	139,513	8,068,038	888,708	7,788,896	6,811,189	1,506,139	12.0	12.4	+31.6	+29.8	+32.5	+21.7
NOVEMBER	1105328	21,804	1068,161	1004,843	156,310	9,095,272	838,889	8,818,098	7,880,183	1,889,881	12.4	12.8	+31.8	+26.6	+31.9	+20.5
DECEMBER	1251725	9,681	1888,638	1181,828	157,789	10,[illegible]	838,245	9,795,178	8,888,188	1,844,488	12.4	12.8	+32.2	+25.3	+34.4	+18.4
TOTAL JANUARY	78,488	12,981	71,878	76,818	111,880	[illegible]	[illegible]	[illegible]	[illegible]	1,170,488	10.8	10.8	- 8.6	+ 8.6	+18.8	+14.3
FEBRUARY	[illegible]	21,899	148,948	120,878	122,220	[illegible]	[illegible]	[illegible]	[illegible]	1,288,830	11.8	10.8	+ 8.6	+18.3	+18.8	+11.8
MARCH	[illegible]	17,220	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	2,[illegible]	2,[illegible]	1,[illegible]	11.1	11.7	+17.8	+18.8	+18.8	+18.8
APRIL	[illegible]	16,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,[illegible]	10.8	11.7	+18.1	+20.4	+18.8	+21.8
MAY	[illegible]	21,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.8	12.8	+87.8	+84.4	+24.7	+22.8
JUNE	[illegible]	15,189	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.7	12.8	+88.8	+88.8	+11.9	+17.8
JULY	[illegible]	8,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.8	12.8	+87.4	+80.8	+88.8	+14.8
AUGUST	[illegible]	28,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	10.7	12.8	+84.8	+17.4	+18.8	+ 9.4
SEPTEMBER	[illegible]	18,[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	+ 8.8	+18.8	+ 8.8	+ 8.8
OCTOBER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	+ 8.4	+ 8.4	+ 7.1	+88.8
NOVEMBER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DECEMBER	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Defendant's Exhibit No. 218.

2625

FINAL MONTHLY REPORT (4-5 WEEK MONTHS, DOMESTIC AND EXPORT MARKETS)

(Less Radio-Phonograph Combinations) - Cumulative

RE-100-12

MONTH	SMITH					INDUSTRY					SMITH PERCENTAGE OF INDUSTRY		% from Previous Year			
	FACTORY			DISTRIBUTORS		FACTORY			DISTRIBUTORS				PRODUCTION		SALES TO DEALERS	
	Production	Inventory	Shipments	Sales To Dealers	Inventory	Production	Inventory	Shipments	Sales To Dealers	Inventory	Peak	Sales To Dealers	Smith	Industry	Smith	Industry
1961																
JANUARY	91,682	21,962	77,774	72,791	137,180	702,957	910,699	996,981	471,818	1,219,783	13.0	15.4	+18.9	- 2.8	- 2.1	- 33.1
FEBRUARY	199,847	37,909	136,254	138,665	189,884	1,508,283	894,180	1,311,080	1,111,887	1,293,963	13.2	13.1	+ 8.1	- 6.8	+ 3.0	-13.9
MARCH	290,225	17,077	271,848	229,043	178,700	2,809,818	981,841	2,309,081	1,965,094	1,436,207	11.6	11.7	+ 0.8	+ 3.8	- 3.9	- 3.7
APRIL	547,924	28,381	318,763	308,798	185,041	3,250,172	1,090,882	2,996,743	2,637,880	1,485,178	10.7	11.8	- 8.4	- 8.1	- 1.6	+ 0.8
MAY	400,736	36,608	387,672	388,882	187,092	4,047,846	1,178,739	3,631,068	3,373,842	1,881,726	9.9	16.4	-18.2	- 8.7	- 1.3	+ 6.0
JUNE	517,308	17,483	486,301	489,018	128,848	5,188,499	1,189,736	4,703,856	4,370,863	1,487,253	10.0	11.8	- 7.0	- 0.8	- 0.7	+10.7
JULY	570,822	16,006	539,402	572,690	100,326	5,889,770	1,138,084	5,457,082	5,128,813	1,488,840	9.7	11.2	- 8.3	+ 1.8	- 2.6	+11.7
AUGUST	704,948	31,180	884,988	666,801	117,764	6,798,487	1,097,100	6,418,863	6,083,824	1,489,919	10.4	11.1	+ 1.6	+ 8.1	- .8	+14.4
SEPTEMBER	914,308	25,177	887,280	823,848	153,063	8,236,708	1,089,873	7,884,811	7,435,380	1,648,711	11.1	11.1	+ 6.7	+ 8.8	+ 8.7	+14.8
OCTOBER	1081034	38,486	1014886	938,696	201,485	9,476,864	1,088,180	9,188,078	8,836,829	1,680,[illegible]	11.4	12.0	+ 6.0	+ 8.7	+ 7.8	+11.8
NOVEMBER	1254657	31,196	1171734	1080882	246,178	10,618,982	989,084	10,288,201	9,607,142	1,789,[illegible]	11.6	10.9	+ 8.8	+ 9.8	+ 0.0	+ 9.1
DECEMBER	1337107	7,848	1291089	1283180	184,872	11,806,801	1,084,012	11,388,818	11,222,010	1,861,788	11.3	13.8	+ 1.8	+10.6	- .3	+ 7.4
1962																
JANUARY	77,181	20,883	60,824	78,518	165,886	820,041	1,188,388	736,851	562,869	1,846,[illegible]	9.4	13.8	-15.8	+18.7	+ 7.8	+19.4
FEBRUARY	167,147	26,758	136,869	149,842	176,060	1,804,606	1,388,083	1,515,139	1,260,782	1,427,794	9.3	11.6	-13.0	+ 19.3	+10.3	+13.6
MARCH	275,250	10,896	260,696	253,768	184,131	3,027,515	1,405,280	2,685,980	2,177,[illegible]	1,851,[illegible]	9.2	11.1	- 8.2	+19.8	+10.6	+10.8
APRIL	389,810	43,834	318,870	333,894	176,353	3,660,071	1,868,784	3,438,832	2,987,487	1,525,[illegible]	9.3	11.5	+ 0.2	+21.8	+10.1	+13.3
MAY	449,161	31,708	408,060	412,896	189,258	4,[illegible]	1,788,660	4,[illegible]	3,788,[illegible]	1,[illegible]	9.2	11.[illegible]	+18.2	+21.1	+ 6.8	+11.5
JUNE	556,978	19,289	525,387	530,949	185,[illegible]	5,[illegible]	1,780,580	5,[illegible]	4,800,[illegible]	1,871,084	9.3	10.6	+ 7.7	+16.2	+ 6.5	+ 9.8
JULY	607,633	22,454	568,233	586,918	157,[illegible]	6,[illegible]	1,414,[illegible]	6,321,804	5,721,[illegible]	1,[illegible]	9.0	10.[illegible]	+ 6.4	+14.6	+ 4.1	+11.6
AUGUST	725,128	30,461	675,007	681,111	162,186	7,549,278	1,363,081	7,188,928	6,570,546	1,781,761	9.6	10.5	+ 2.9	+11.0	- 3.6	+ 9.1
SEPTEMBER	907,829	17,[illegible]	887,265	848,617	170,[illegible]	8,[illegible]	1,287,[illegible]	8,[illegible]	7,[illegible]	1,[illegible]	10.2	10.6	-0.7	+ 7.3	+ 2.3	+ 5.3
OCTOBER	1088818	24,[illegible]	1087[illegible]	971,[illegible]	208,[illegible]	10,[illegible]	1,[illegible]	9,[illegible]	8,[illegible]	1,[illegible]	10.7	10.9	-1.1	+ 5.7	+3.5	+ 4.1
NOVEMBER	1169881	25,[illegible]	1152848	1151[illegible]	189,[illegible]	11,[illegible]	1,[illegible]	10,[illegible]	10,[illegible]	1,[illegible]	10.8	11.1	- 8.8	+ 8.8	+ 7.7	+ 5.9
DECEMBER	1289653	7,840	1264028	1289408	112,[illegible]	11,[illegible]	1,[illegible]	11,[illegible]	11,[illegible]	1,[illegible]	10.6	11.3	- 3.9	+ 9.9	+ 8.1	+ 4.7

*Includes Export

Radio Research And Sales Statistics

Defendant's Exhibit No. 218.

2636

FINAL MONTHLY REPORT (4 - 5 WEEK MONTH, DOMESTIC AND EXPORT MARKETS)

STATUS OF ZENITH AND INDUSTRY PRODUCTION, SALES AND INVENTORY UNITS, ZENITH PERCENTAGES OF INDUSTRY, AND PERCENT CHANGES

Product: Total Radio (Less Radio-Phonograph Combination) - Cumulative

Report No.: HR-100-1A

Month	Zenith					Industry					Zenith Percentage of Industry		± % from Previous Year			
	Factory			Distributor		Factory			Distributor				Production		Sales to Dealers	
	Production	Inventory	Shipments	Sales To Dealers	Inventory	Production	Inventory	Shipments	Sales To Dealers	Inventory	Prod.	Sales To Dealers	Zenith	Industry	Zenith	Industry
1952																
JANUARY	77,181	80,883	60,694	78,518	165,238	880,041	1,196,368	736,251	962,889	1,348,836	8.4	12.9	-15.9	+26.7	+ 7.9	+19.4
FEBRUARY	167,147	85,758	139,849	148,642	175,060	1,804,608	1,358,085	1,818,139	1,380,782	1,427,736	9.3	11.9	-14.0	+29.2	+10.3	+13.4
MARCH	275,250	10,288	288,694	283,788	164,151	3,007,815	1,405,288	2,656,887	2,177,886	1,651,876	9.2	11.7	- 6.2	+20.8	+10.8	+10.8
APRIL	368,810	48,554	338,870	338,894	178,288	3,880,871	1,886,758	3,630,238	2,887,687	1,685,088	9.3	11.8	+ 6.3	+21.8	+10.1	+13.3
MAY	449,185	31,702	408,088	412,788	189,183	4,980,088	1,700,607	4,257,887	3,729,976	1,651,078	9.2	11.0	+12.1	+21.1	+ 8.8	+11.8
JUNE	556,978	19,229	588,827	590,948	185,119	5,988,868	1,880,830	6,486,221	4,809,874	1,671,004	9.3	10.9	+7.7	+18.8	+8.8	+ 9.8
JULY	607,638	28,654	588,888	588,918	157,648	6,788,878	1,414,618	6,821,504	5,781,868	1,773,186	9.0	10.4	+ 8.8	+14.8	+ 4.1	+11.8
AUGUST	725,188	30,661	676,007	681,111	168,198	7,548,878	1,383,081	7,188,988	6,870,844	1,781,743	9.6	10.8	+ 8.8	+11.8	+ 8.8	+ 9.1
SEPTEMBER	807,889	17,484	887,885	848,817	170,088	8,888,848	1,887,885	8,611,848	7,885,880	1,868,018	10.8	10.8	- 0.8	+ 7.8	+ 8.8	+ 8.8
OCTOBER	1048818	36,888	1007888	971,888	801,186	10,018,778	1,881,775	9,884,882	8,888,804	1,848,118	10.7	10.8	- 1.1	+ 8.7	+ 8.8	+ 4.1
NOVEMBER	1188881	88,838	1188888	1181888	180,788	11,884,888	1,887,877	10,788,847	10,188,888	1,787,108	10.8	11.1	- 8.8	+ 8.8	+ 7.7	+ 8.8
DECEMBER	1288888	7,840	1848888	1588888	118,188	11,818,848	1,188,884	11,871,848	11,787,888	1,887,888	10.8	11.8	+ 8.8	+ 8.1	+ 8.1	+ 4.7
1953																
JANUARY	88,888	88,888	78,888	84,888	118,888	888,888	1,188,888	887,888	888,888	1,888,888	14.8	14.1	-88.8	-88.8	-18.8	- 18.8
FEBRUARY	888,888	88,888	188,888	147,888	148,888	1,888,888	1,188,888	1,878,888	1,888,888	1,417,188	18.8	18.8	-88.8	-88.8	- 1.8	-15.8
MARCH	388,188	11,888	888,188	848,884	888,848	8,887,788	881,888	8,888,888	1,887,888	1,888,888	18.8	18.8	-88.8	-88.8	- 4.4	-15.8
APRIL	188,888	18,888	111,888	111,788	221,788	8,888,888	1,888,888	8,888,888	8,888,888	1,878,888	14.8	18.8	-88.8	-88.8	- 8.8	-15.8
MAY	518,788	80,847	478,888	888,888	818,187	8,888,888	1,888,888	8,888,888	8,888,888	1,888,188	18.8	18.8	-81.8	-88.8	- 8.8	-18.8
JUNE	618,188	17,888	888,188	878,788	888,888	4,888,888	2,888,888	4,888,888	8,888,888	1,887,888	18.7	18.1	-88.8	-88.8	-18.4	-18.8
JULY	858,888	88,881	888,888	888,888	187,888	5,888,888	2,888,888	5,888,888	4,888,788	1,888,888	18.8	18.8	-88.8	-88.8	-18.8	-18.8
AUGUST	788,188	18,888	788,888	888,888	188,188	8,888,888	1,888,888	8,888,888	8,888,888	1,888,888	11.8	11.8	-88.8	-88.8	- 7.8	-18.8
SEPTEMBER	848,888	85,881	888,888	888,888	188,888	7,888,888	1,888,888	8,888,888	8,888,888	1,888,888	11.8	11.8	-88.8	-88.8	- 8.8	-18.8
OCTOBER	872,888	87,888	888,888	888,888	188,788	8,888,788	1,888,888	8,888,888	8,888,888	1,888,888	11.8	11.8	-88.8	-88.8	- 8.8	-18.8
NOVEMBER	1088888	80,888	1088888	887,888	187,888	9,888,888	1,888,888	8,888,888	8,888,888	1,888,888	11.8	11.8	-88.8	-88.8	-18.8	-18.8
DECEMBER	1187888	11,888	1188888	1188888	188,888	10,888,888	1,888,888	18,888,888	8,888,888	1,888,888	11.8	11.8	-88.8	-88.8	-18.8	-18.8

Zenith Sales and Sales Statistics

ZENITH SALES IN SPECIFIC MARKETS.

		Television	Radio
Canada (per Market Research and Sales Statistics Dept. reports)			
1959	Year	10916	14468
	1/1 to 5/31	3573	4228
	6/1 to 12/31	7343	10238
1960		13396	16935
1961		17295	18908
1962		14195	15062
1963	1/1-5/31	4766	4059
United Kingdom (furnished by Export Dept.)			
1959	6/1-12/31	0	1488
1960		1	1604
1961		21	1274
1962		28	1319
1963	1/1-5/31	15	388
Australia (furnished by Export Dept.)			
1959	6/1-12/31	2	1
1960		9	9
1961		2	8
1962		1	12
1963	1/1-5/31	0	25

CANADIAN TELEVISION SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

MONTH: Second Half - 1959

REPORT NO.: NIVC-130

		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	621	4,529	646	5,175	1,450	6,605	1,568	8,173	1,454	9,607	1,309	10,916
	INDUSTRY UNITS	27,086	191,447	31,105	222,552	48,670	271,222	56,410	327,632	46,125	373,757	32,208	405,965
	ZENITH SHARE	2.3	2.4	2.1	2.3	2.9	2.4	2.8	2.5	3.1	2.6	4.1	2.7
NEWFOUNDLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	305	4,851	335	5,186	529	5,715	1,664	7,479	785	8,264	594	8,858
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
NOVA SCOTIA	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	922	8,519	1,173	9,692	1,964	11,656	2,119	13,775	2,690	16,465	1,783	
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	
NEW BRUNSWICK AND PRINCE EDWARD ISLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	
	INDUSTRY UNITS	[illegible]	[illegible]	707	[illegible]	[illegible]	7,409	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	
QUEBEC	ZENITH UNITS	127	754	115	869	189	1,0[illegible]	[illegible]	1,[illegible]4	[illegible]	[illegible]	[illegible]	
	INDUSTRY UNITS	6,677	41,747	7,561	49,308	12,911	62,219	13,78[illegible]	76,000	9,86[illegible]	85,[illegible]26	[illegible],7[illegible]	
	ZENITH SHARE	1.9	1.8	1.5	1.8	1.5	1.7	1.9	1.7	[illegible].5	1.8	[illegible]	
ONTARIO	ZENITH UNITS	281	1,8[illegible]	220	2,118	536	2,654	[illegible]85	3,[illegible]39	[illegible]	[illegible]	[illegible]	
	INDUSTRY UNITS	11,214	[illegible],386	12,034	89,420	16,356	105,776	18,639	124,415	17,595	142,010	13,[illegible]93	
	ZENITH SHARE	2.5	2.5	1.8	2.4	3.3	2.5	2.8	2.5	2.7	2.5	3.[illegible]	2
MANITOBA	ZENITH UNITS	17	308	63	371	189	560	219	779	203	982	[illegible]	[illegible]
	INDUSTRY UNITS	1,808	12,750	2,084	14,824	3,515	18,339	4,[illegible]4	22,713	3,131	25,84[illegible]	2,[illegible]	28,[illegible]2
	ZENITH SHARE	0.9	2.4	3.0	2.5	5.4	3.1	5.0	3.4	6.5	3.8	7.5	[illegible]
SASKATCHEWAN	ZENITH UNITS	21	390	34	424	203	627	[illegible]49	876	[illegible]76	1,052	176	[illegible],228
	INDUSTRY UNITS	1,326	9,751	1,533	11,284	3,252	14,536	4,[illegible]5	18,769	3,318	22,087	2,[illegible]07	24,[illegible]94
	ZENITH SHARE	1.6	4.0	2.2	3.8	6.2	4.3	5.9	4.7	5.3	4.8	[illegible]	[illegible]
ALBERTA	ZENITH UNITS	45	575	80	655	156	809	199	1,008	158	1,166	170	[illegible],336
	INDUSTRY UNITS	1,829	18,595	2,493	19,088	3,696	22,784	4,066	26,850	3,599	30,449	2,452	32,901
	ZENITH SHARE	2.5	3.5	3.2	3.4	4.2	3.8	4.9	3[illegible]	4.4	3.8	6.9	4.1
BRITISH COLUMBIA	ZENITH UNITS	130	606	134	740	157	897	160	1,057	164	1,22[illegible]	[illegible]	1,346
	INDUSTRY UNITS	2,377	14,405	3,095	17,500	5,098	22,598	5,584	28,182	3,240	31,4[illegible]2	1,807	33,[illegible]9
	ZENITH SHARE	5.5	4.2	4.3	4.2	3.1	4.0	2.9	3.8	5.1	3.9	6.9	4.1
[illegible] AND NORTHWEST TERRITORY	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-

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Market Research And Sales Statistics

Defendant's Exhibit No. 218.

2629

CANADIAN TELEVISION SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

MONTH: First Half - 1959

REPORT NO.: 4 - NCVC-130

		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	817		970	1,787	681	2,468	716	3,184	389	3,573	535	3,908
	INDUSTRY UNITS	31,741		33,701	65,442	25,732	89,174	27,612	116,786	22,958	139,744	24,857	164,601
	ZENITH SHARE	2.6		3.1	2.8	2.6	2.8	2.6	2.7	1.7	2.6	1.4	2.4
NEWFOUNDLAND	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	402		343	745	587	1,332	1,153	2,485	1,220	3,705	943	4,648
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-
NOVA SCOTIA	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	1,554		1,143	2,697	1,308	4,005	4,431	8,436	1,126	9,562	-	-
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-
NEW BRUNSWICK AND PRINCE	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-
QUEBEC	ZENITH UNITS	[illegible]		240	307	112	419	134	553	40	594	33	627
	INDUSTRY UNITS	5,970		5,749	11,719	4,764	16,483	6,187	22,670	5,907	28,577	6,493	35,070
	ZENITH SHARE	2.7		2.5	2.6	2.4	2.5	2.2	2.4	0.8	2.1	0.4	1.8
ONTARIO	ZENITH UNITS	208		365	573	292	865	373	1,238	194	1,432	185	1,617
	INDUSTRY UNITS	11,913		13,332	25,245	11,029	36,274	11,122	47,396	8,668	56,064	10,108	66,172
	ZENITH SHARE	1.7		2.7	2.3	2.6	2.4	3.4	2.6	2.2	2.6	1.8	2.4
MANITOBA	ZENITH UNITS	69		94	163	64	227	29	256	13	269	22	291
	INDUSTRY UNITS	2,492		2,145	4,657	1,675	6,312	1,690	8,002	1,539	9,541	1,381	10,922
	ZENITH SHARE	2.8		4.4	3.5	3.8	3.8	1.7	3.2	0.8	2.8	1.6	2.7
SASKATCHEWAN	ZENITH UNITS	109		124	233	62	295	27	322	20	342	27	369
	INDUSTRY UNITS	2,294		1,925	4,219	1,475	5,694	976	6,670	832	7,502	923	8,425
	ZENITH SHARE	4.8		6.4	5.5	4.2	5.2	2.8	4.8	2.4	4.6	2.9	4.4
ALBERTA	ZENITH UNITS	113		144	257	83	340	97	437	50	487	41	528
	INDUSTRY UNITS	3,419		3,267	6,686	2,373	9,059	2,467	11,526	1,521	13,047	1,719	14,766
	ZENITH SHARE	3.3		4.4	3.8	3.5	3.8	3.9	3.8	3.3	3.7	2.4	3.6
BRITISH COLUMBIA	ZENITH UNITS	157		97	254	68	322	56	378	66	444	32	476
	INDUSTRY UNITS	2,638		2,981	5,619	1,685	7,304	1,967	9,271	1,466	10,737	1,291	12,028
	ZENITH SHARE	6.0		3.3	4.5	4.0	4.4	2.8	4.1	4.5	4.1	2.5	4.0
[illegible] AND [illegible] TERRITORIES	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-		-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-

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Market Research And Sales Statistics

Defendant's Exhibit No. 218.

2630

CANADIAN TELEVISION SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

MONTH: Second Half 1960 | REPORT NO.: MKT-130

		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	716	5,700	991	6,691	1,898	8,589	1,641	10,230	1,381	11,611	1,785	
	INDUSTRY UNITS	19,664	156,064	28,091	184,155	46,944	231,099	44,812	275,911	35,469	311,380	29,575	340
	ZENITH SHARE	3.6	3.7	3.5	3.6	4.0	3.7	3.7	3.7	3.9	3.7	6.1	
NEWFOUNDLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	77	3,524	244	3,768	569	4,337	699	5,036	543	5,579	497	6,076
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
NOVA SCOTIA	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	721	7,219	1,287	8,506	[illegible]	12,364	2,034	14,398	1,564	15,702	1,192	14,894
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
AND P.E.I.	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	720	5,597	753	6,350	[illegible]	7,788	[illegible]	9,059	[illegible]	[illegible]	[illegible]	[illegible]
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH UNITS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	INDUSTRY UNITS	5,344	40,435	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	ZENITH SHARE	2.7	3.6	3.1	3.5	3.0	3.4	2.9	3.3	2.5	3.2	6.6	3.5
ONTARIO	ZENITH UNITS	334	2,288	479	2,767	761	3,528	494	4,022	515	4,535	576	5,111
	INDUSTRY UNITS	8,260	59,543	10,749	70,292	16,647	86,939	15,441	102,380	12,119	114,499	11,046	125,545
	ZENITH SHARE	4.0	3.8	4.5	3.9	4.6	4.1	3.2	3.9	4.2	4.0	5.2	4.1
MANITOBA	ZENITH UNITS	84	520	91	611	215	826	238	1,064	179	1,243	257	1,500
	INDUSTRY UNITS	1,068	9,682	1,827	11,709	3,614	15,323	3,758	19,081	2,857	21,938	2,325	24,263
	ZENITH SHARE	7.9	5.5	5.0	5.2	5.9	5.4	6.3	5.6	6.3	5.7	11.1	6.2
SASKATCHEWAN	ZENITH UNITS	42	408	52	460	155	615	216	831	151	982	114	1,096
	INDUSTRY UNITS	909	8,937	1,514	8,451	2,677	11,128	3,616	14,744	2,494	17,238	2,012	19,250
	ZENITH SHARE	4.6	5.9	3.4	5.4	5.8	5.5	6.0	5.6	6.1	5.7	5.7	5.7
ALBERTA	ZENITH UNITS	45	534	68	602	248	850	229	1,079	152	1,231	233	1,464
	INDUSTRY UNITS	1,184	11,644	2,103	13,747	3,532	17,279	4,219	21,498	2,930	24,428	2,910	27,338
	ZENITH SHARE	3.8	4.6	3.3	4.4	7.8	4.9	5.4	5.0	5.2	5.0	8.0	5.4
BRITISH COLUMBIA	ZENITH UNITS	85	521	65	586	116	702	162	864	163	1,027	178	1,205
	INDUSTRY UNITS	1,381	11,287	1,905	13,190	3,430	16,620	3,180	19,800	2,897	22,697	1,878	24,575
	ZENITH SHARE	4.7	4.6	3.4	4.4	3.4	4.2	5.1	4.4	5.6	4.5	9.4	4.9
YUKON AND NORTHWEST TERRITORY	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-

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Market Research And Sales Statistics

Defendant's Exhibit No. 218.

2631.

CANADIAN TELEVISION SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

Month: Second Half 1961

Report No.: NIVC-130

		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER			
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	1,105	7,282	1,479	8,761	2,958	11,693	1,958	13,628	1,812	15,437	[illegible]	17,[illegible]
	INDUSTRY UNITS	22,360	154,824	*29,794	181,618	*46,332	230,950	*43,505	274,455	*39,184	313,639	[illegible]	[illegible]
	ZENITH SHARE %	5.1	4.7	5.0	4.7	6.3	5.1	4.4	5.0	4.6	4.9	[illegible]	[illegible]
[illegible]	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	* 192	2,241	* 291	2,532	* 498	3,030	* 669	3,699	* 591	4,290	* [illegible]	4,775
	ZENITH SHARE %	-	-	-	-	-	-	-	-	-	-	-	-
NOVA SCOTIA	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	* 615	7,298	*1,009	8,307	* 1,674	9,981	* 1,612	11,593	* [illegible]	13,135	* 1,[illegible]	14,841
	ZENITH SHARE %	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	* 676	4,715	* 686	5,401	* 1,142	6,543	* 1,[illegible]	7,[illegible]	* 1,[illegible]	8,[illegible]	[illegible]	[illegible]
	ZENITH SHARE %	-	-	-	-	-	-	-	-	-	-	-	-
QUEBEC	ZENITH UNITS	69	2,944	584	3,528	1,000	4,528	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	INDUSTRY UNITS	* 6,142	44,672	*8,775	53,445	*15,592	67,037	*11,908	78,945	*10,968	89,911	* 7,[illegible]	97,037
	ZENITH SHARE %	7.5	5.6	6.7	5.5	7.5	5.7	5.2	5.8	5.6	5.8	[illegible]	[illegible]
ONTARIO	ZENITH UNITS	482	2,920	586	3,506	1,193	4,701	599	5,300	680	5,980	[illegible]	[illegible]
	INDUSTRY UNITS	* 8,841	56,972	*11,213	68,185	*14,356	82,491	*12,877	95,368	*12,058	107,486	*10,[illegible]	117,[illegible]
	ZENITH SHARE %	5.5	5.1	5.2	5.1	8.3	5.7	4.7	5.6	5.6	5.6	[illegible]	[illegible]
MANITOBA	ZENITH UNITS	26	485	76	561	164	725	141	866	186	992	157	1,149
	INDUSTRY UNITS	* 1,098	9,008	* 1,812	10,818	* 3,535	14,353	* 3,655	18,008	* 2,902	20,910	* 1,[illegible]	22,[illegible]
	ZENITH SHARE %	2.4	5.4	4.2	5.2	4.6	5.1	3.9	4.8	4.3	4.7	[illegible]	[illegible]
SASKATCHEWAN	ZENITH UNITS	15	261	56	317	68	385	120	505	79	584	77	661
	INDUSTRY UNITS	* 1,155	6,876	* 1,481	8,357	* 2,922	11,279	* 2,881	14,160	* 2,764	16,924	* 1,[illegible]	18,[illegible]
	ZENITH SHARE %	1.3	3.8	3.8	3.8	2.3	3.4	4.2	3.6	2.8	3.5	[illegible]	[illegible]
ALBERTA	ZENITH UNITS	72	793	83	876	280	1,156	234	1,390	151	1,541	[illegible]	1,[illegible]
	INDUSTRY UNITS	* 1,351	10,749	* 1,735	12,482	* 4,148	16,630	* 4,594	21,224	* 3,688	24,912	* 3,[illegible]	28,[illegible]
	ZENITH SHARE %	5.3	7.4	4.8	7.0	6.8	7.0	5.1	6.5	4.1	6.2	[illegible]	[illegible]
BRITISH COLUMBIA	ZENITH UNITS	61	579	88	667	207	874	137	1,011	157	1,168	145	1,[illegible]
	INDUSTRY UNITS	* 1,586	12,345	* 2,796	15,141	* 4,465	19,606	* 3,929	23,536	* 3,968	27,627	* 3,[illegible]	[illegible]
	ZENITH SHARE %	3.8	4.7	3.1	4.4	4.6	4.5	3.5	4.3	4.4	4.3	[illegible]	[illegible]
YUKON AND NORTHWEST TERRITORIES	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE %	-	-	-	-	-	-	-	-	-	-	-	-

* Estimated - based on the assumption that Admiral, not included in BIA reports, accounts for 15% of industry.

Source: Nielsen Research And Sales Statistics

#8

Defendant's Exhibit No. 218.

2632

CANADIAN TELEVISION SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE.

MONTH: Second Half 1962 | REPORT NO.: BEVC-130

		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	1,120	8,468	739	9,207	1,471	10,678	1,116	11,794	1,233	13,027	1,168	14,195
	INDUSTRY UNITS	30,092	203,927	33,584	237,511	32,578	290,089	51,720	341,809	49,710	391,519	29,457	420,976
	ZENITH SHARE	3.7	4.2	2.2	3.9	2.8	3.7	2.2	3.5	2.5	3.3	4.0	3.4
NEWFOUNDLAND	ZENITH UNITS	-	28	4	32	8	40	-	40	-	40	-	40
	INDUSTRY UNITS	201	2,564	394	2,958	522	3,480	519	3,999	623	4,622	389	5,011
	ZENITH SHARE	-	1.1	1.0	1.1	1.5	1.1	-	1.0	-	0.9	-	0.8
NOVA SCOTIA	ZENITH UNITS	-	31	-	31	-	31	1	32	-	32	-	32
	INDUSTRY UNITS	1,044	7,966	860	8,826	1,036	10,662	1,722	12,384	1,572	13,956	845	14,801
	ZENITH SHARE	-	.4	-	.4	-	.3	.1	.3	-	0.2	-	0.2
NEW BRUNSWICK AND PRINCE EDWARD ISLAND	ZENITH UNITS	1	57	1	58	-	58	-	58	-	58	-	58
	INDUSTRY UNITS	684	5,027	692	5,719	1,001	7,020	1,199	8,219	1,356	10,127	741	10,868
	ZENITH SHARE	.1	1.0	.1	.9	-	.8	-	.7	-	0.6	-	0.5
QUEBEC	INDUSTRY UNITS	8,225	58,984	10,215	69,199	14,868	84,067	14,072	98,139	11,989	110,128	7,858	117,986
	ZENITH SHARE	4.8	4.9	3.1	4.6	3.6	4.5	2.3	4.2	3.9	4.1	5.8	4.2
ONTARIO	ZENITH UNITS	486	3,237	270	3,507	549	4,056	432	4,488	448	4,936	436	5,372
	INDUSTRY UNITS	11,684	72,692	11,538	84,030	17,403	101,433	18,126	119,559	18,085	137,644	10,273	147,917
	ZENITH SHARE	4.2	4.5	2.4	4.2	3.2	4.0	2.4	3.8	2.5	3.6	4.2	3.6
MANITOBA	ZENITH UNITS	42	440	41	481	106	587	121	708	76	784	68	852
	INDUSTRY UNITS	1,937	13,396	2,174	15,570	3,735	19,305	3,334	22,639	2,930	25,569	2,093	27,662
	ZENITH SHARE	2.2	3.3	1.9	3.1	2.8	3.0	3.6	3.1	2.6	3.1	3.2	3.1
SASKATCHEVAN	ZENITH UNITS	32	285	18	303	44	347	56	403	30	433	49	482
	INDUSTRY UNITS	1,036	8,323	1,458	9,781	2,825	12,606	2,870	15,476	2,450	17,926	1,533	19,459
	ZENITH SHARE	3.1	3.4	1.2	3.1	1.6	2.8	2.0	2.6	1.2	2.4	3.2	2.5
ALBERTA	ZENITH UNITS	41	740	60	800	95	895	121	1,016	139	1,155	83	1,238
	INDUSTRY UNITS	2,442	16,296	2,999	19,297	4,441	23,738	4,786	28,524	4,740	33,264	2,585	35,849
	ZENITH SHARE	1.7	4.5	2.0	4.1	2.1	3.8	2.5	3.6	2.9	3.5	3.2	3.5
BRITISH COLUMBIA	ZENITH UNITS	126	761	27	778	133	911	57	968	76	1,044	93	1,137
	INDUSTRY UNITS	2,859	17,787	3,454	21,181	5,936	27,117	5,090	32,207	6,088	38,295	3,180	41,455
	ZENITH SHARE	4.4	4.2	.8	3.7	2.8	3.4	1.1	3.0	1.2	2.7	2.9	2.7
YUKON AND NORTHWEST TERRITORY	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-

*December Includes Color Television

Market Research And Sales Statistics

Defendant's Exhibit No. 218.

2633

CANADIAN TELEVISION SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

Report for: First Half 1965

Report No.: REVO-130

		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	875		1,157	1,991	1,080	3,031	772	3,658	916	4,784	879	5,654
	INDUSTRY UNITS	31,[illegible]2		32,533	64,525	29,405	93,729	23,018	116,810	28,468	146,278	29,240	175,518
	ZENITH SHARE	2.7		3.5	3.1	3.7	3.2	3.4	3.1	3.2	3.3	3.0	3.2
NEWFOUNDLAND	ZENITH UNITS	-		1	1	6	7	10	17	1	18	2	20
	INDUSTRY UNITS	457		525	982	457	1,399	987	1,686	457	2,143	393	2,536
	ZENITH SHARE	-		0.2	0.1	1.4	0.5	1.0	0.7	0.2	0.5	0.5	0.5
NOVA SCOTIA	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	1,146		924	2,070	1,015	3,085	1,080	4,165	1,188	5,353	733	6,086
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-
[illegible] ISLAND	ZENITH UNITS	-		-	-	-	-	-	-	14	14	-	-
	INDUSTRY UNITS	1,000		965	1,965	951	2,894	829	3,723	994	4,434	477	4,911
	ZENITH SHARE	-		-	-	-	-	0.6	0.1	1.7	0.6	-	0.3
[illegible]	ZENITH UNITS												
	INDUSTRY UNITS	7,657		6,998	14,655	8,182	24,835	8,105	32,956	8,905	41,849	7,794	49,643
	ZENITH SHARE	2.9		3.1	3.0	3.9	4.8	3.8	4.4	3.5	4.2	3.5	3.8
ONTARIO	ZENITH UNITS	410		468	878	420	1,298	597	1,595	351	1,946	332	2,278
	INDUSTRY UNITS	11,018		11,350	22,369	11,731	34,100	9,511	43,611	9,[illegible]	53,[illegible]	11,[illegible]	64,[illegible]
	ZENITH SHARE	3.7		4.1	3.9	3.6	3.8	3.7	3.7	3.7	3.7	3.0	3.5
MANITOBA	ZENITH UNITS	39		58	97	86	183	60	243	78	321	58	379
	INDUSTRY UNITS	2,181		2,119	4,280	1,428	5,708	1,318	7,026	1,372	8,398	1,278	9,676
	ZENITH SHARE	1.8		2.7	2.3	5.9	3.2	4.6	3.6	5.7	3.8	4.5	3.9
SASKATCHEWAN	ZENITH UNITS	28		19	47	34	81	24	105	24	129	26	155
	INDUSTRY UNITS	1,355		2,113	3,471	1,082	4,553	828	5,381	1,019	6,410	825	7,235
	ZENITH SHARE	2.1		0.9	1.4	3.1	1.8	2.8	1.9	2.4	2.0	3.1	2.1
ALBERTA	ZENITH UNITS	72		91	163	80	243	61	304	100	404	97	501
	INDUSTRY UNITS	3,017		2,685	5,650	2,255	7,955	2,041	9,996	2,241	12,237	1,660	13,897
	ZENITH SHARE	2.4		3.4	2.9	3.5	3.1	3.0	3.0	4.4	3.3	6.0	3.6
BRITISH COLUMBIA	ZENITH UNITS	29		72	101	47	148	23	171	16	187	16	203
	INDUSTRY UNITS	4,057		3,910	8,967	3,542	9,289	3,138	11,427	3,557	14,[illegible]	2,[illegible]	16,[illegible]
	ZENITH SHARE	0.7		1.8	1.5	2.0	1.6	1.0	1.3	0.8	1.2	0.7	1.1
YUKON AND NORTHWEST TERRITORY	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-		-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-

1965

Market Research And Sales Statistics

CANADIAN RADIO SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

MONTH: Second Half - 1959

REPORT NO.: MRC-130

		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	1,676	7,357	1,012	8,369	1,368	9,737	1,210	10,947	1,665	12,612	1,854	14,4
	INDUSTRY UNITS	33,545	227,407	35,563	265,990	60,848	326,438	55,055	381,493	58,565	440,058	64,114	504.
	ZENITH SHARE	5.6	3.2	2.8	3.1	2.3	3.0	2.2	2.9	2.8	2.9	2.9	2.9
NEWFOUNDLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	420	4,366	649	5,015	1,148	6,163	704	6,867	912	7,779	1,151	8,930
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
NOVA SCOTIA	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	1,866	8,700	2,067	10,767	2,063	12,830	1,579	14,409	1,987	16,395	2,628	19,023
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
NEW BRUNSWICK AND PRINCE EDWARD ISLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
QUEBEC	ZENITH UNITS	765	3,640	239	3,779	209	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	INDUSTRY UNITS	5,376	34,018	11,915	75,933	16,543	92,476	14,743	107,219	14,820	122,039	15,663	137,702
	ZENITH SHARE	3.7	2.4	2.0	2.3	1.3	2.1	1.0	2.0	2.7	2.1	2.4	2.1
ONTARIO	ZENITH UNITS	972	2,933	206	3,099	591	3,690	415	4,105	580	4,685	665	5,350
	INDUSTRY UNITS	12,643	81,045	13,944	94,987	23,611	118,598	21,103	139,707	22,960	162,667	28,653	191,320
	ZENITH SHARE	7.7	3.6	1.5	3.3	2.5	3.1	2.0	2.9	2.5	2.9	2.3	2.8
MANITOBA	ZENITH UNITS	91	750	209	959	163	1,122	117	1,239	129	1,368	232	1,600
	INDUSTRY UNITS	4,794	16,291	2,582	18,873	4,022	22,895	3,941	26,836	4,469	31,305	3,194	34,499
	ZENITH SHARE	5.1	4.6	8.1	5.1	4.1	4.9	3.0	4.6	2.9	4.4	7.3	4.6
SASKATCHEWAN	ZENITH UNITS	60	504	79	583	122	705	114	819	133	952	111	1,063
	INDUSTRY UNITS	1,347	10,869	1,481	12,350	2,498	14,848	2,760	17,608	2,315	19,923	2,486	22,409
	ZENITH SHARE	4.5	4.6	5.3	4.7	4.9	4.7	4.1	4.7	5.7	4.8	4.5	4.7
ALBERTA	ZENITH UNITS	162	896	118	1,014	112	1,126	242	1,368	222	1,590	236	1,826
	INDUSTRY UNITS	2,129	17,778	2,347	20,125	4,690	24,815	3,852	28,667	4,143	32,810	5,772	38,582
	ZENITH SHARE	7.6	5.0	5.0	5.0	2.4	4.5	6.3	4.8	5.4	4.8	4.5	5.0
BRITISH COLUMBIA	ZENITH UNITS	235	774	161	935	171	1,106	179	1,285	194	1,479	238	1,717
	INDUSTRY UNITS	2,918	18,451	2,910	21,361	4,855	26,216	4,786	31,002	5,675	36,677	4,726	41,403
	ZENITH SHARE	8.0	4.2	5.5	4.4	3.5	4.2	3.7	4.1	3.4	4.0	5.0	4.
YUKON AND NORTHWEST TERRITORY	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-

3664.1

Market Research And Sales Statistics.

Defendant's Exhibit No. 218.

2635

CANADIAN RADIO SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

MONTH: First Half - 1959 | REPORT NO.: MRC-150

		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	780		760	1,540	824	2,364	1,115	3,479	749	4,228	1,266	5,494
	INDUSTRY UNITS	29,716		33,403	63,119	32,889	96,008	34,866	130,874	33,097	163,971	30,088	194,059
	ZENITH SHARE	2.6		2.3	2.4	2.5	2.5	3.2	2.7	2.3	2.6	4.2	
NEWFOUNDLAND	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	332		582	914	1,015	1,929	861	2,790	620	3,410	536	3,946
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-
NOVA SCOTIA	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	1,039		1,026	2,065	1,294	3,359	1,168	4,527	1,177	5,704	1,350	7,054
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-
NEW BRUNSWICK AND PRINCE EDWARD ISLAND	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	584		871	1,455	877	2,332	840	3,172	827	3,999	652	4,651
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-
QUEBEC	ZENITH UNITS	155		163	318	147	465	273	738	161	899	902	1,801
	INDUSTRY UNITS	8,248		10,608	18,856	8,982	27,838	8,338	37,176	9,581	47,057	7,363	
	ZENITH SHARE	1.9		1.5	1.7	1.6	1.7	2.9	2.0				
ONTARIO	ZENITH UNITS	280		197	477	189	666	452	1,118	265	1,383	538	1,921
	INDUSTRY UNITS	10,460		10,413	20,893	11,514	32,407	13,266	15,673	11,132	56,805	11,595	68,400
	ZENITH SHARE	2.7		1.9	2.3	1.6	2.1	3.4	2.4	2.4	2.4	4.6	2.8
MANITOBA	ZENITH UNITS	120		121	241	141	382	84	466	75	541	118	659
	INDUSTRY UNITS	2,341		2,487	4,828	2,274	7,102	2,292	9,394	2,541	11,935	2,562	14,497
	ZENITH SHARE	5.1		4.9	5.0	6.2	5.4	3.7	5.0	3.0	4.5	4.6	4.5
SASKATCHEWAN	ZENITH UNITS	60		75	135	132	267	71	338	55	393	51	444
	INDUSTRY UNITS	1,476		1,820	3,296	1,502	4,798	1,695	6,493	1,508	8,002	1,520	9,522
	ZENITH SHARE	4.1		4.1	4.1	8.8	5.6	4.2	5.2	3.6	4.9	3.4	4.7
ALBERTA	ZENITH UNITS	88		137	225	121	346	169	515	96	611	123	734
	INDUSTRY UNITS	2,556		3,174	5,730	2,853	8,583	2,640	11,223	2,813	15,836	1,813	15,649
	ZENITH SHARE	3.4		4.3	3.9	4.2	4.0	6.4	4.6	3.7	4.4	6.8	4.7
BRITISH COLUMBIA	ZENITH UNITS	77		67	144	94	238	66	304	97	401	140	541
	INDUSTRY UNITS	2,295		2,427	4,722	2,631	7,353	2,771	10,124	3,097	13,221	2,312	15,533
	ZENITH SHARE	3.4		2.8	3.0	3.6	3.2	2.4	3.0	3.1	3.0	6.1	3.5
YUKON AND NORTHWEST TERRITORY	ZENITH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-		-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-		-	-	-	-	-	-	-	-	-	-

3664-1

Market Research And Sales Statistics

Defendant's Exhibit No. 218.

2636

CANADIAN RADIO SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

MONTH: Second Half 1960 | REPORT NO.: NRC-130

		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	1,142	8,548	1,726	8,074	2,253	10,327	2,085	12,420	2,035	14,455	2,480	16,935
	INDUSTRY UNITS	30,517	205,509	37,130	242,459	42,550	284,969	41,277	326,246	54,710	380,956	53,911	434,867
	ZENITH SHARE	3.7	3.1	4.6	3.3	5.3	3.6	5.1	3.8	3.7	3.8	4.6	3.9
NEWFOUNDLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	415	4,546	664	5,010	566	5,576	954	6,530	959	7,489	794	8,283
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
NOVA SCOTIA	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	1,293	9,222	2,004	11,226	1,718	12,944	1,644	14,588	2,766	17,354	2,324	19,678
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
NEW BRUNSWICK AND PRINCE EDWARD ISLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	1,018	8,165	946	7,111	1,054	8,165	1,074	9,239	1,216	10,455	1,494	11,949
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
QUEBEC	ZENITH UNITS	289	1,752	505	2,257	381	2,618	37	2,996	494	3,490	455	3,945
	INDUSTRY UNITS	7,882	59,920	8,870	68,790	10,348	79,138	10,336	89,474	16,227	105,701	15,451	121,152
	ZENITH SHARE	3.8	2.9	5.1	3.2	3.1	3.2	3.7	3.2	3.0	3.2	2.9	3.2
ONTARIO	ZENITH UNITS	579	2,189	656	2,845	1,291	4,136	1,080	5,196	866	6,062	1,292	7,354
	INDUSTRY UNITS	13,350	77,024	15,832	90,856	15,056	105,712	15,286	120,998	19,355	140,353	21,174	161,527
	ZENITH SHARE	4.3	2.8	4.8	3.1	8.6	3.9	6.9	4.3	4.5	4.3	6.1	4.6
MANITOBA	ZENITH UNITS	72	660	153	813	118	931	183	1,114	143	1,257	188	1,445
	INDUSTRY UNITS	1,559	12,177	2,475	14,650	2,790	17,440	2,715	20,155	3,216	23,369	2,272	25,641
	ZENITH SHARE	4.6	5.4	6.2	5.5	4.2	5.3	6.7	5.5	4.4	5.4	8.3	5.6
SASKATCHEWAN	ZENITH UNITS	50	440	59	499	101	600	140	740	97	837	135	972
	INDUSTRY UNITS	1,129	7,724	1,493	9,217	1,722	10,939	1,885	12,824	1,920	14,744	1,947	16,691
	ZENITH SHARE	4.4	5.7	4.0	5.4	5.9	5.5	7.4	5.8	5.1	5.7	6.9	5.8
ALBERTA	ZENITH UNITS	58	716	183	899	210	1,109	196	1,305	204	1,507	275	1,782
	INDUSTRY UNITS	1,748	14,415	3,224	17,639	3,552	21,191	3,935	25,126	4,308	29,432	3,726	33,158
	ZENITH SHARE	3.3	5.0	5.7	5.1	5.9	5.2	4.9	5.2	4.7	5.1	7.4	5.4
BRITISH COLUMBIA	ZENITH UNITS	94	611	170	781	152	933	138	1,071	231	1,302	137	1,439
	INDUSTRY UNITS	2,445	14,346	2,824	17,170	3,730	20,900	3,448	24,348	4,765	29,113	4,709	33,822
	ZENITH SHARE	3.8	4.3	6.0	4.5	4.1	4.5	4.0	4.4	4.8	4.5	2.9	4.3
YUKON AND NORTHWEST TERRITORY	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-

3664.1

Market Research And Sales Statistics

Defendant's Exhibit No. 218.

2637

CANADIAN RADIO SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

Month: Second Half 1981 | Report No.: NRC-130

		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	1,496	9,108	1,460	10,568	2,224	12,792	1,657	14,449	1,016	16,265	2,641	18,906
	INDUSTRY UNITS	*24,333	181,216	*30,866	*212,082	*46,107	258,189	*44,251	302,440	*52,336	354,776	*56,038	*410,814
	ZENITH SHARE	6.2	5.0	4.7	5.0	4.8	5.0	3.7	4.8	3.7	4.6	4.7	4.6
NEWFOUNDLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	* 269	2,806	* 363	3,169	* 641	3,810	* 629	4,439	NA	NA	* 590	NA
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]	INDUSTRY UNITS	* 1,168	9,022	* 1,160	10,182	* 1,952	12,114	* 1,646	13,760	NA	NA	* 2,600	NA
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
NEW BRUNSWICK AND PRINCE EDWARD ISLAND	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	* 620	4,189	* 704	4,893	* 1,166	6,059	* 885	7,043	NA	NA	* 1,575	NA
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH UNITS	199	2,040	694	3,095	880	4,210	664	4,885	664	5,727	970	6,917
QUEBEC	INDUSTRY UNITS	* 7,435	54,436	* 8,721	65,156	*12,534	75,690	*11,960	* 87,670	NA	NA	*16,444	NA
	ZENITH SHARE	6.6	5.4	7.2	5.7	5.1	5.6	3.9	5.3	-	-	5.3	-
	ZENITH UNITS	652	3,366	453	3,819	962	4,781	749	5,530	693	6,223	960	7,183
ONTARIO	INDUSTRY UNITS	* 9,513	67,554	*12,596	80,150	*18,661	98,811	*17,076	115,887	NA	NA	*23,057	NA
	ZENITH SHARE	6.9	5.0	3.6	4.8	5.2	4.8	4.4	4.8	-	-	4.2	-
	ZENITH UNITS	100	762	185	897	190	1,087	161	1,248	163	1,411	302	1,713
MANITOBA	INDUSTRY UNITS	* 1,011	9,192	* 1,748	10,940	* 2,757	13,697	* 2,763	16,460	NA	NA	* 4,623	NA
	ZENITH SHARE	9.9	8.3	7.7	8.2	6.9	7.9	5.8	7.6	-	-	11.5	-
	ZENITH UNITS	49	377	36	413	53	466	75	541	76	617	81	698
SASKATCHEWAN	INDUSTRY UNITS	* 695	6,562	* 881	7,443	* 1,414	8,857	* 1,699	10,556	NA	NA	* 1,896	NA
	ZENITH SHARE	7.1	5.7	4.1	5.5	3.7	5.3	4.4	5.1	-	-	4.3	-
	ZENITH UNITS	102	941	96	1,037	223	1,260	102	1,362	84	1,446	246	1,692
ALBERTA	INDUSTRY UNITS	* 1,386	11,272	* 2,047	13,319	* 2,993	16,312	* 3,288	19,600	NA	NA	* 5,224	NA
	ZENITH SHARE	7.4	8.5	4.7	7.8	7.5	7.7	5.1	6.9	-	-	7.6	-
	ZENITH UNITS	104	705	116	819	160	979	101	1,080	155	1,235	188	1,423
BRITISH COLUMBIA	INDUSTRY UNITS	* 2,136	16,185	* 2,646	18,831	* 4,005	22,840	* 4,185	27,025	NA	NA	* 4,031	NA
	ZENITH SHARE	4.9	4.3	4.4	4.3	4.0	4.3	2.5	4.0	-	-	4.3	-
YUKON AND NORTHWEST TERRITORY	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-

NOTE: * Estimate - based on the assumption that Admiral, not included in BIA reports, accounts for 6% industry.

Source: Nielsen Research And Sales Statistics

Defendant's Exhibit No. 218.
2638

CANADIAN RADIO SHARE OF MARKET REPORT
BY PROVINCE - MONTHLY & CUMULATIVE

MONTH: Second Half 1962 | REPORT NO.: BRC-150

		JULY		AUGUST		SEPTEMBER		OCTOBER		NOVEMBER		DECEMBER	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	ZENITH UNITS	1,154	8,709	926	9,635	1,429	11,064	999	12,063	1,449	13,512	1,580	15,092
	INDUSTRY UNITS	20,573	142,904	25,721	168,625	33,798	202,423	33,360	235,785	45,069	280,852	41,533	322,385
	ZENITH SHARE	5.62	6.1	3.6	5.7	4.2	5.5	3.0	5.1	3.2	4.8	3.7	4.7
NEWFOUNDLAND	ZENITH UNITS	5	136	24	160	4	164	21	185	-	185	-	185
	INDUSTRY UNITS	464	3,650	897	4,547	844	5,391	933	6,324	834	7,158	694	7,852
	ZENITH SHARE	1.1	3.7	2.7	3.5	.5	3.0	2.3	2.9	-	2.6	-	2.4
NOVA SCOTIA	ZENITH UNITS	-	23	1	24	-	24	4	28	1	29	1	30
	INDUSTRY UNITS	824	6,968	1,312	8,280	1,644	9,924	1,250	11,174	2,032	13,206	1,778	14,984
	ZENITH SHARE	-	.3	.1	.3	-	.2	.2	.3	-	.2	.1	.2
NEW BRUNSWICK AND PRINCE	ZENITH UNITS	-	99	1	100	-	100	-	100	-	100	-	100
	INDUSTRY UNITS	569	4,154	753	4,907	1,050	5,957	1,016	6,973	1,169	8,142	1,090	9,232
	ZENITH SHARE	-	2.4	.1	2.0	-	1.7	-	1.4	-	1.2	-	1.1
QUEBEC	ZENITH UNITS	442	2,832	372	3,204	631	3,835	259	4,094	561	4,655	505	5,160
	INDUSTRY UNITS	6,392	44,765	7,022	51,787	8,609	60,396	7,178	67,574	11,110	78,684	9,215	87,899
	ZENITH SHARE	6.9	6.3	5.3	6.2	7.3	6.3	3.6	6.1	5.0	5.9	5.5	5.9
ONTARIO	ZENITH UNITS	508	3,294	295	3,589	431	4,020	437	4,457	584	5,041	533	5,574
	INDUSTRY UNITS	7,101	49,066	8,575	57,660	12,485	70,145	13,334	83,477	18,738	102,215	19,128	121,343
	ZENITH SHARE	7.2	6.7	3.4	6.2	3.5	5.7	3.3	5.3	3.1	4.9	2.8	4.6
MANITOBA	ZENITH UNITS	47	739	83	822	73	895	64	959	88	1,047	123	1,170
	INDUSTRY UNITS	1,836	8,657	1,963	10,600	2,257	12,857	2,562	15,419	2,575	17,994	1,951	19,945
	ZENITH SHARE	4.5	8.8	4.2	7.8	3.2	7.0	2.5	6.2	3.4	5.8	6.3	5.9
SASKATCHEWAN	ZENITH UNITS	21	317	20	337	77	414	50	464	30	494	64	558
	INDUSTRY UNITS	649	5,077	1,059	6,136	1,486	7,622	1,408	9,030	1,404	10,434	1,360	11,794
	ZENITH SHARE	3.2	6.2	1.9	5.5	5.2	5.4	3.6	5.1	2.1	4.7	4.7	4.7
ALBERTA	ZENITH UNITS	54	702	79	781	92	873	87	966	77	1,043	204	1,247
	INDUSTRY UNITS	1,295	9,551	1,867	11,418	2,896	14,314	2,533	16,847	2,958	19,805	2,717	22,522
	ZENITH SHARE	4.2	7.4	4.2	6.8	3.4	6.1	3.4	5.7	2.8	5.3	7.5	5.5
BRITISH COLUMBIA	ZENITH UNITS	77	567	51	618	115	733	77	810	108	918	120	1,038
	INDUSTRY UNITS	2,243	11,017	2,273	13,290	2,529	15,819	3,146	18,965	4,249	23,214	3,600	26,814
	ZENITH SHARE	3.4	5.1	2.2	4.7	4.5	4.6	2.4	4.3	2.5	4.0	3.3	3.9
YUKON AND NORTHWEST TERRITORY	ZENITH UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-	-	-	-	-	-	-	-	-	-	-	-
	ZENITH SHARE	-	-	-	-	-	-	-	-	-	-	-	-

BRC-1

Broadcast Research And Sales Statistics

Defendant's Exhibit No. 218.
2639

CANADIAN RADIO SHARE OF MARKET REPORT BY PROVINCE - MONTHLY & CUMULATIVE

First Half 1965

No. 130

		JANUARY		FEBRUARY		MARCH		APRIL		MAY		JUNE	
		MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE	MONTH	YEAR TO DATE
TOTAL CANADA	3 MONTH UNITS	451		795	1,246	1,041	2,287	868	3,155	878	4,033	[illegible]	[illegible]
	INDUSTRY UNITS	15,341		19,921	35,262	20,405	55,667	23,487	[illegible]	25,280	[illegible]	[illegible]	[illegible]
	3 MONTH SHARE	3.0		4.0	3.5	5.1	4.1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NEWFOUNDLAND	3 MONTH UNITS	-		1	1	-	1	14	15	8	23	47	[illegible]
	INDUSTRY UNITS	389		429	788	692	1,480	835	2,315	780	3,095	975	[illegible]
	3 MONTH SHARE	-		0.2	0.1	-	0.1	1.8	0.6	0.7	0.5	4.8	2.4
[illegible]	3 MONTH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	864		688	1,552	906	2,458	845	3,303	1,519	4,822	[illegible]	[illegible]
	3 MONTH SHARE	-		-	-	-	-	-	-	-	-	-	-
NEW BRUNSWICK AND PRINCE EDWARD ISLAND	3 MONTH UNITS	25		-	25	36	61	-	61	-	-	-	-
	INDUSTRY UNITS	508		451	957	724	1,681	878	2,559	771	[illegible]	[illegible]	[illegible]
	3 MONTH SHARE	4.9		-	2.6	5.0	3.6	[illegible]	2.4	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	3 MONTH UNITS	113		265	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
	INDUSTRY UNITS	[illegible]		6,536	10,145	5,076	15,221	7,959	23,180	8,102	31,282	6,[illegible]	[illegible]
	3 MONTH SHARE	5.3		4.1	3.7	0.2	[illegible]	[illegible]	3.4	3.0	[illegible]	[illegible]	[illegible]
[illegible]	3 MONTH UNITS	[illegible]		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1,173	[illegible]	[illegible]	[illegible]	[illegible]
	INDUSTRY UNITS	5,[illegible]5		6,625	11,850	8,152	20,002	7,311	27,313	8,21[illegible]	[illegible]	[illegible]	[illegible]
	3 MONTH SHARE	5.1		4.8	4.2	4.7	4.4	4.0	4.3	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	3 MONTH UNITS	49		56	105	47	172	[illegible]	194	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	INDUSTRY UNITS	1,357		1,285	2,642	1,251	3,893	1,551	5,444	1,[illegible]15	6,[illegible]	[illegible]	[illegible]
	3 MONTH SHARE	3.6		4.7	4.7	5.8	4.4	2.6	3.7	4.[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	3 MONTH UNITS	38		23	61	29	90	84	112	50	[illegible]	[illegible]	[illegible]
	INDUSTRY UNITS	746		790	1,536	739	2,275	911	3,186	857	[illegible]	[illegible]	[illegible]
	3 MONTH SHARE	4.6		5.2	4.0	5.8	4.0	6	3.6	5.8	[illegible]	[illegible]	[illegible]
ALBERTA	3 MONTH UNITS	42		48	90	94	184	[illegible]	846	56	[illegible]	[illegible]	[illegible]
	INDUSTRY UNITS	1,175		1,416	2,591	1,584	4,175	[illegible]	6,082	1,501	[illegible]	1,[illegible]	[illegible]
	3 MONTH SHARE	3.6		5.4	3.9	5.9	4.4	[illegible]	4.0	3.4	3.7	[illegible]	[illegible]
BRITISH COLUMBIA	3 MONTH UNITS	17		52	69	33	102	[illegible]	119	4	119	[illegible]	[illegible]
	INDUSTRY UNITS	1,650		1,741	3,391	1,[illegible]79	4,650	1,[illegible]	6,181	1,727	7,908	1,[illegible]	[illegible]
	3 MONTH SHARE	1.0		3.0	2.0	2.6	2.2	0.8	1.9	4.2	2.4	1.4	[illegible]
[illegible]	3 MONTH UNITS	-		-	-	-	-	-	-	-	-	-	-
	INDUSTRY UNITS	-		-	-	-	-	-	-	-	-	-	-
	3 MONTH SHARE	-		-	-	-	-	-	-	-	-	-	-

ZENITH RADIO CORP.—ZENITH SALES CORP.

Unit and Dollar Sales.

	1963			1962			1961			1960			1959		
	Units	Amount	Per Unit	Units	Amount	Per Unit	Units	Amount	Per Unit	Units	Amount	Per Unit	Units	Amount	Per Unit
Television															
Black & white															
Domestic	1266572	180354637	142.40	1104020	169926000	153.92	1060315	177248103	167.17	996966	163017721	163.51	1005815	164677500	163.73
Export	41708	4345794	104.20	38949	3910325	100.40	57421	5043693	87.84	24931	2451893	98.35	32576	3026387	92.90
Canada	17614	2261251	128.38	12919	1767316	136.80	17876	2577107	144.16	12276	1788406	145.68	9042	1344810	148.73
Total	1325894	186961682		1155888	175603641		1135612	184868813		1034173	167258020		1047433	169048757	
Color															
Domestic	158752	63670289	401.07	92091	38369603	416.65									
Export	23	10108	439.48												
Canada	679	242137	356.61	497	187985	378.24									
Total	159454	63922534		92588	38557588										
Radio-Phono-Stereo*															
Domestic	1378666	59834488	43.40	1445112	61650078	42.66	1466962	56573991	38.57	1442058	56557949	39.22	1441654	62728783	43.51
Export	33414	2724784	81.55	30616	2027476	66.22	39185	2316978	59.13	37265	2046859	54.92	45558	2379565	52.23
Canada	13005	473718	36.43	14686	512889	34.92	18949	567660	29.96	17124	576866	33.69	10612	437828	41.26
Total	1425085	63032987		1490414	64190443		1525096	59458629		1496447	59181474		1497824	65546176	
Total	2910433	313917203		2738890	278351672		2660708	244327442		2530620	226439494		2545257	234594933	
***Radio**															
Domestic	1151098	29535474	25.66	1237995	33809080	27.31	1288054	37384383	29.02	1268825	38832057	30.60	1200338	38283383	31.89
Export	27508	2183147	79.36	27467	1749249	63.69	32827	1538046	46.85	33553	1748731	52.12	39548	1878559	47.50
Canada	12513	345235	27.59	14060	381334	27.12	18480	491387	26.59	16265	467902	28.77	9919	349594	35.24
Total	1191119	32063856		1279522	35939663		1339361	39413816		1318643	41048690		1249795	40511516	
Phono-Stereo															
Domestic	227568	30299011	133.14	207117	27840998	134.42	178908	19189608	107.26	173233	17725892	102.32	241326	24445420	101.30
Export	5906	541637	91.71	3149	278227	88.35	6358	778932	122.51	3712	297928	80.26	6010	501006	83.36
Canada	492	128483	261.14	626	131555	210.15	469	76273	162.63	859	108964	126.85	693	88284	127.32
Total	233966	30969131		210892	28250780		185735	20044813		177804	18132784		248029	25034660	
Total Radio-Ph.-St.	1425085	63032987		1490414	64190443		1525096	59458629		1496447	59181474		1497824	65546176	

1960

ZENITH RADIO CORP.—PARENT ONLY 1960 FINALS.

	Canadian Portion						Parent Total	Percentages						
	Television		Radio		Stereo Hi Fi	Total		Television			Radio			
								Fixed		Variable	Fixed		Variable	
Sales before Price Adj. Provision	1762203		464702											
Price Adjustment Provision	11737		312											
	1750466	100%	464390	100%						100.00%				100%
Net Sales														
Deductions										.03				.03
Excise Tax	489	.03	131	03										
Royalties, Contingencies, etc.	200816	11.47	60076	12.94				(11.7%)	1.34	(88.3%) 10.13	(11.7%)	1.51	(88.3%)	11.43
Advertising	(463)	(.03)	(123)	(.03)						(.03)				(.03)
Bad Debts	3918	.22	1039	.22						.22				.22
Trade Discount Allowance	16766	.96	678	.15						.96				.15
Warranty Provision														
Total Deductions	221526	12.65	61801	13.31						11.31				11.80
Net Sales After Deductions	1528940	87.35	402589	86.69						88.69				88.20
Prime Cost														
Material Standard	1019675	58.25	274598	59.11						58.25				59.11
Material Adjustment from Standard	(20372)	(1.16)	(5484)	(1.18)						(1.16)				(1.18)
Material Inventory Allowance	30590	1.75	4504	.97						1.75				.97
Material Price Variance	(8159)	(.47)	(154)	(.03)						(.47)				(.03)
Misc. Material Costs	11019	.63	2444	.53						.63				.53
Labor Standard	102597	5.86	27255	5.87						5.86				5.87
Labor Adjustment from Standard	499	.03	132	.03						.03				.03
Labor Variance	3622	.21	2336	.50						.21				.50
Other Direct Labor-Rework, etc.	18967	1.08	5038	1.08						1.08				1.08
Other Dir. Labor-Fringe on Dir. Labor	35189	2.01	9348	2.01				(55.5%)	1.12	(44.5%) .89	(55.5%)	1.12	(44.5%)	.89
Tools and Dies	15613	.89	2299	.50					.89			.50		
Total Prime Cost	1209240	69.08	322226	69.39						67.07				67.77
Contribution to Overhead	319700	18.27	80363	17.30						21.62				20.43
Overhead														
Factory Overhead—Standard	139100	7.95	29845	6.43				(45.8%)	3.34	(54.2%) 3.97	(45.8%)	2.71	(54.2%)	3.20
Factory Overhead in Excess of Std.	(11199)	(.64)	(2402)	(.52)					.83			.83		
Eng. (Other than Civ. Development)	14530	.83	3857	.83					1.35			1.35		
Civilian Development (Direct)	23669	1.35	6279	1.35										
Indirect Contract Expense									1.39			1.39		
Indirect Administrative	24263	1.39	6437	1.39					.28			.28		
Legal Expense	4953	.28	1314	.28				(25%)	.80	(75%) 2.40	(25%)	.71	(75%)	2.12
Sales Expense and Cabinet Design	55996	3.20	13158	2.83										
Parts										6.37				5.32
Total Overhead	251381	14.36	58488	12.59						15.25				15.11
Operating Profit or Loss	68319	3.91	21875	4.71										
Other Income or Expense														
Miscellaneous Income—Purchase Dis.	15543	.89	4207	.91						.89				.91
		4.80		5.62					11.34	16.14		10.41		16.02
Exess Amortization Adj. (Income)														
Phonevision Research Eng. (Direct)														
California Research (ZRRC)														
Phonevision Promotion														
Inter Div. Inv. Profit Variation														
Total Misc. Income or Expense														
Profit & Loss Adjustment–Prior Years														
Net Profit Before Taxes														
Tax Estimate														
Net Profit After Tax Estimate														

Purchase discount 1688870 .88

ZENITH RADIO CORP.—PARENT ONLY.

Summary of Profit Percentages Applying to Additional Sales Volumes in Canada, United Kingdom, Australia.

Television and Radio—By Years.

	Television					Radio				
	1959	1960	1961	1962	1963	1959	1960	1961	1962	1963
Net Sales		100.00	100.00	100.00	100.00		100.00	100.00	100.00	100.00
Deductions										
Royalties, contingencies, etc.		.03	.10	.10	.08		.03	.03	.03	
Advertising		10.13	7.53	6.70	4.86		11.43	7.45	6.68	4.87
Bad debts		(.03)		(.14)	.25		(.03)		(.14)	.25
Trade discount allowance		.22	.25	.18			.22	.25	.18	
Warranty provision		.96	.81	.67	.60		.15	.13	.11	.15
Total deductions		11.31	8.69	7.51	5.79		11.80	7.86	6.86	5.27
Net Sales After Deductions		88.69	91.31	92.49	94.21		88.20	92.14	93.14	94.73
Prime Costs										
Material standard		58.25	57.24	56.23	57.81		59.11	63.16	59.32	59.73
Material adjustment from standard		(1.16)	(1.30)	(1.26)			(1.18)	(1.44)	(1.33)	
Material inventory allowance		1.75	1.72	1.56	1.73		.97	.95	1.02	.88
Material price variance		(.47)	(.96)	(.73)	(.95)		(.03)	(1.06)	(1.38)	(1.29)
Misc. material costs		.63	.86	1.15	.96		.53	.95	1.24	.80
Labor standard		5.86	5.93	6.05	6.14		5.87	5.79	6.70	5.91
Labor adjustment from standard		.03	.04	(.07)			.03	.04	(.08)	
Labor variance		.21	.61	.68	.26		.50	.59	.75	.53
Other direct labor–Rework, etc.		1.08	1.20	1.20	.93		1.08	1.17	1.33	1.95
Other direct labor–Fringe on SL		.89	1.01	1.07	.94		.89	.99	1.18	1.06
Tools and dies										
Total prime cost		67.07	66.35	65.88	67.82		67.77	71.14	68.75	69.57
Contributions to Overhead		21.62	24.96	26.61	26.39		20.43	21.00	24.39	25.16
Factory overhead–standard		3.97	3.40	3.07	2.60		3.20	2.70	2.76	2.08
Factory overhead in excess of std.										
Engineering (other than civ. development)										
Engineering–Civ. develop–Direct										
Indirect administrative										
Legal expense										
Sales expense		2.40	1.75	2.27	2.54		2.12	1.73	2.66	3.03
Total overhead		6.37	5.15	5.34	5.14		5.32	4.43	5.42	5.11
Operating Profit or Loss		15.25	19.81	21.27	21.25		15.11	16.57	18.97	20.05
Purchase discounts		.89	.82	.79	.83		.91	.91	.83	.85
Profit or Loss Before Other Income and Expense		16.14	20.63	22.06	22.08		16.02	17.48	19.80	20.90

1. The 1959 profit and loss was not suitable for this purpose and we have substituted 1960.
   (a) 1959 Profit and Loss was for combined television, radio and hi fi.
   (b) Advertising and sales promotional expense was allocated between domestic and Canada on the sales dollar basis—direct expenses were not segregated.

   The substitution of 1960 for 1959 results in the use of a lower profit percentage.

Note: It has been assumed that, to the extent that sets built to the standards used in England and Australia would cost more or less than sets built to Canadian standards, the factory selling price would be adjusted correspondingly and the profit percentage would not change.

1961

ZENITH RADIO CORP.—PARENT ONLY 1961 FINALS

	Canadian Portion						Percentages					
							Television			Radio		
	Black & White	Color	Radio	Stereo Hi Fi	Total	Parent Total	Fixed	Variable		Fixed	Variable	
Sales before Price Adjustment Provision	2531460		490386									
Price Adjustment Provision	19971		12034									
									100.00%			100.00%
Net Sales	2511489	100%	478352	100%								
Deductions												
Excise Tax												
Royalties, Contingencies, etc.	2584	.10	150	.03					.10			.03
Advertising	218374	8.69	41112	8.59			(13.3%)	1.16 (86.7%)	7.53	(13.3%)	1.14 (86.7%)	7.45
Bad Debts	(36)	—	(7)	—								
Trade Discount Allowance	6176	.25	1176	.25					.25			.25
Warranty Provision	20224	.81	640	.13					.81			.13
Total Deductions	247322	9.85	43071	9.00					8.69			7.86
Net Sales After Deductions	2264167	90.15	435281	91.00					91.31			92.14
Prime Cost												
Material Standard	1437593	57.24	302132	63.16					57.24			63.16
Material Adjustment from Standard	(32769)	(1.30)	(6887)	(1.44)					(1.30)			(1.44)
Material Inventory Allowance	43128	1.72	4525	.95					1.72			.95
Material Price Variance	(24166)	(.96)	(5091)	(1.06)					(.96)			(1.06)
Misc. Material Costs	21686	.86	4557	.95					.86			.95
Labor Standard	148954	5.93	27702	5.79					5.93			5.79
Labor Adjustment from Standard	1096	.04	204	.04					.04			.04
Labor Variance	15205	.61	2829	.59					.61			.59
Other Dir. Labor-Rework, etc.	30115	1.20	5601	1.17					1.20			1.17
Other Dir. Labor-Fringe on Dir. Labor	58371	2.32	10856	2.27			(56.6%)	1.31 (43.4%)	1.01	(56.6%)	1.28 (43.4%)	.99
Tools and Dies	20190	.80	2147	.45				.80			.45	
Total Prime Cost	1719408	68.46	348575	72.87					66.35			71.14
Contribution to Overhead	544764	21.69	86706	18.13					24.96			21.00
Overhead												
Factory Overhead—Standard	199512	7.94	30231	6.32								
6.28 Factory Overhead in Excess of Std.	(41686)	(1.66)	(6309)	(1.32)			(45.9%)	2.88 (54.1%)	3.40	(45.9%)	2.30 (54.1%)	2.70
Eng. (Direct and Indirect)	47912	1.91	9126	1.91				1.91			1.91	
Indirect Administrative	45070	1.80	8584	1.80				1.80			1.80	
Legal Expense	5333	.21	1016	.21				.21				
Sales Expense	58489	2.33	11057	2.31			(25%)	.58 (75%)	1.75	(25%)	(75%)	1.73
Parts									5.15			4.43
Total Overhead	814680	12.53	53705	11.23					19.81			16.57
Operating Profit or Loss	230084	9.16	33001	6.90								
Other Income or Expense												
Miscellaneous Income (Purchase disc.)	20666	.82	4343	.91					.82			.91
Excess Amortization Adj. (Income)		9.98		7.81				10.65	20.63		9.67	17.48
Phonevision Research Eng. Direct												
California Research (ZRRC)												
Phonevision Promotion												
Special Contingency Prov.												
Total Misc. Income or Expense												
Interdivision Inv. Profit Variation												
Retirement Provision Adj.												
Net Profit Before Taxes												
Tax Estimate (52,643974)												
Net Profit After Tax Estimate												

Purchase Discount 1726, 398 .83

(1) Parametric Engineering

1962

ZENITH RADIO CORP.—PARENT ONLY 1962 FINALS.

	Canadian Portion						Parent Total	Percentages						
								Television				Radio		
	Black & White		Color	Radio	Stereo Hi Fi	Total		Fixed	Variable			Fixed	Variable	
Sales before Price Adj. Provision	1767084			382094						100.00%				100.00%
Price Adjustment Provision	6432			5504						.10				.03
Net Sales	1760652	100.00%		376590	100.00%			(29.8%)	2.85 (70.1%)	6.70	(29.8%)	2.84	(70.1%)	6.68
Deductions										(.14)				(.14)
Excise Tax										.18				.18
Royalties, Contingencies, etc.	1841	.10		129	.03					.67				.11
Advertising	168111	9.55		35846	9.52									
Bad Debts	(2513)	(.14)		(538)	(.14)					7.51				6.86
Trade Discount Allowance	3090	.18		661	.18									
Warranty Provision	11827	.67		442	.11					92.49				93.14
Total Deductions	182358	10.36		36540	9.70					56.23				59.32
Net Sales After Deductions	1578296	89.64		340050	90.30									
Prime Cost										(1.26)				(1.33)
Material Standard	990014	56.23		223386	59.32					1.56				1.02
Material Adjustment from Standard	(22190)	(1.26)		(5007)	(1.33)					(.73)				(1.38)
Material Inventory Allowance	27461	1.56		3824	1.02					1.15				1.24
Material Price Variance	(12798)	(.73)		(5201)	(1.38)					6.05				6.70
Misc. Material Costs	20212	1.15		4660	1.24					(.07)				(.08)
Labor Standard	106551	6.05		25247	6.70					.68				.75
Labor Adjustment from Standard	(1220)	(.07)		(289)	(.08)					1.20				1.83
Labor Variance	11908	.68		2822	.75					1.07				1.18
Other Dir. Labor-Rework etc.	21175	1.20		5017	1.33			(50.7%)	1.10 (49.3%)	.75	(50.7%)	1.22	(49.3%)	
Other Dir. Labor-Fringe on Dir. Labor	38140	2.17		9037	2.40							.45		
Tools and Dies	13245	.75		1705	.45					65.88				68.75
Total Prime Cost	1192498	67.73		265201	70.42					26.61				24.39
Contribution to Overhead	385798	21.91		74849	19.88									
Overhead								(53.2%)	3.48	3.07	(53.2%)	3.13		2.76
Factory Overhead—Standard	6.55 140455	7.98		26961	7.17									
Factory Overhead in Excess of Std.	(25103)	(1.43)		(4819)	(1.28)				1.67			1.67		
Eng. (Direct and Indirect)	29477	1.67		6305	1.67				1.65			1.65		
Indirect Contract Expense									.43			.43		
Indirect Administrative	29060	1.65		6216	1.65			(25%)	.76 (75%)	2.27	(25%)	.89	(75%)	2.66
Legal Expense	7600	.43		1626	.43					5.34				5.42
Sales Expense	53330	3.03		13375	3.55					21.27				18.97
Parts														
Total Overhead	234819	13.33		49664	13.19		Purchase Discount 1957, 615 .78			.79				.83
Operating Profit or Loss	150979	8.58		25185	6.69				12.69	22.06		12.28		19.80
Other Income or Expense														
Miscellaneous Income	13964	.79		3120	.83									
		9.37			7.52									
Excess Amortization Adj. (Income)														
Phonevision Research Eng. Direct														
California Research (ZRRC)														
Phonevision Promotion														
SPL. Contingency No. 2														
Total Misc. Income or Expense														
Interdivision Inv. Profit Variation														
Retirement Provision Adj.														
Net Profit Before Taxes														
Tax Estimate														
Net Profit After Tax Estimate														

1963

ZENITH RADIO CORP.—PARENT ONLY 1963 PRELIMINARY.

	Canada Portion						Percentages					
							Television			Radio		
	Black & White	Color	Radio	Stereo Hi Fi	Total	Parent Total	Fixed	Variable		Fixed	Variable	
Sales before Price Adjustment Provision	2261504		345075									
Price Adjustment Provision	17784		3034						100.00%			100.00%
Net Sales after Price Adjustment Provision	2243720		342041									
Trade Discount Allowance	2312		198									
Net Sales	2241408	100.00%	341843	100.00%					.08			
Deductions												
Excise Tax	1837	.08										
Royalties, Contingencies, etc.	181556	8.10	27767	8.12			(40.0%)	3.24	(60.0%) 4.86	(40%)	3.25	(60%) 4.87
Advertising	5609	.25	855	.25					.25			.25
Bad Debts												
Trade Discount Allowance									.60			.15
Warranty Provision	13329	.60	501	.15								
Total Deductions	202331	9.03	29123	8.52					5.79			5.27
Net Sales After Deductions	2039077	90.97	312720	91.48					94.21			94.73
Prime Cost												
Material Standard	1295683	57.81	204171	59.73					57.81			59.73
Material Inventory Allowance	38870	1.73	3021	.88					1.73			.88
Material Price Variance	(21821)	(.95)	(4414)	(1.29)					(.95)			(1.29)
Misc. Material Costs	21596	.96	2729	.80					.96			.80
Labor Standard	137598	6.14	20162	5.91					6.14			5.91
Labor Variance	5774	.26	1821	.53					.26			.53
Other Dir. Labor-Rework etc.	20841	.93	6675	1.95					.93			1.95
Other Dir. Labor-Fringe on Dir. Labor	41083	1.83	7045	2.06			(48.7%)	.89	(51.3%) .94	(48.7%)	1.00	(51.3%) 1.06
Tools and Dies	18284	.82	1484	.43				.82			.43	
Total Prime Cost	1558408	69.53	242694	71.00					67.82			69.57
Contribution to Overhead	480669	21.44	70026	20.48					26.39			25.16
Overhead												
Factory Overhead—Standard	182395	8.13	21467	6.28			(55.8%)	3.28	2.60	(55.8%)	2.57	2.03
Factory Overhead in Excess of Std.	(50365)	(2.25)	(5744)	(1.68)								
Eng. (Direct and Indirect)	36454	1.63	5811	1.70				1.63			1.70	
Indirect Contract Expense												
Indirect Administrative	30682	1.37	4843	1.42				1.37			1.42	
Legal Expense	3970	.18	622	.18				.18			.18	
Sales Expense	76032	3.39	14038	4.10			(25%)	.85	(75%) 2.54	(25%)	1.02	(75%) 3.08
Parts												
Total Overhead	279168	12.45	41037	12.00					5.14			5.11
Operating Profit or Loss	201501	8.99	28989	8.48					21.25			20.05
Other Income or Expense												
Zenith Research (UK)	18662	.83	2916	.85					.83			.85
		9.82		9.33					22.08		11.57	20.90
Miscellaneous Income												
Excess Amortization Adj. (Income)												
Phonevision Research Eng. Direct												
California Research (ZRRC)												
Phonevision Promotion												
Special Cont.												
Total Misc. Income or Expense												
Prov. for Inter. Div. Pft in H A Inv.												
Retirement Provision Adj.												
Net Profit Before Taxes												
Tax Estimated												
Net Profit After Tax Estimate												

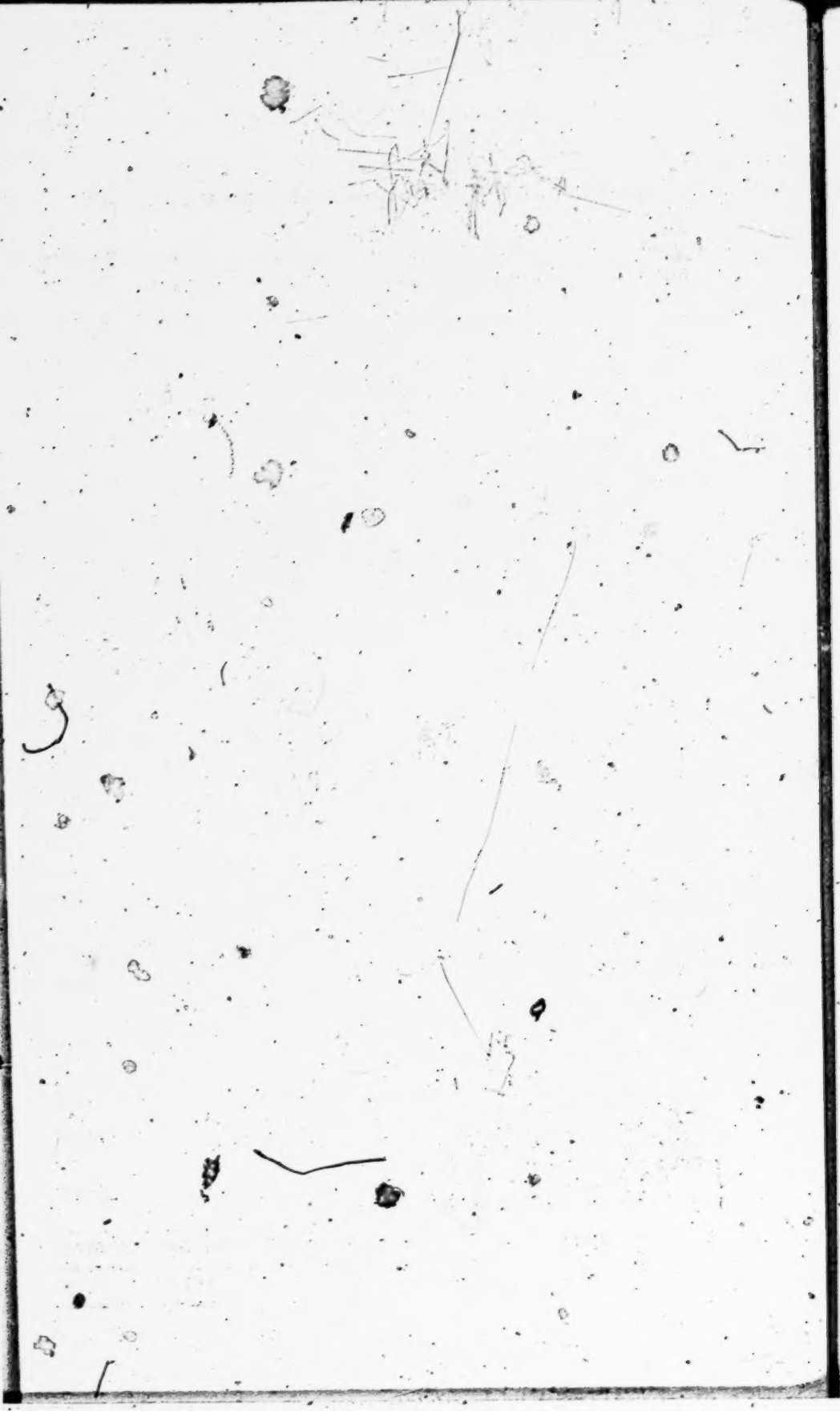
Purch. Disc.
2283, 214 .82

12.26

(1) Parametric Engineering

CANADIAN ADVERTISING AND SALES PROMOTION—1960.

Sub Account	Title	Amount	Fixed	Variable
7020	Magazine advertising space	$4040050	2020025	2020025
7029	Premises (floor space)	——		
7030	Magazine advertising prod.	675212	337606	337606
7040	Trade paper advertising space	681270		681270
7050	Trade paper advertising prod.	1198862		1198862
7060	Newspaper advertising space	9408405		9408405
7070	Newspaper adv. prod. incurred dir. by ZRC	1899699		1899699
7080	Dealer & dist. mats & electros etc.	(39154)		(39154)
7090	Broadcasting–TV stations (time)	——		
7100	Broadcasting–TV stations (talents & prod.)	(2600)		(2600)
7103	Sales Commander's Club expense	——		
7110	Billboard (space)	2852753		2852753
7120	Billboard (prod.)	3019471		3019471
7130	Broadcasting–radio stations (time)	(129200)		(129200)
7140	Broadcasting–radio stations (tal. & prod.)	(19300)		(19300)
7150	Spec. services–surveys, clipping serv. etc.	70143		70143
7170	Telephone directory advertising	94374	94374	
7250	Store displays	(1600569)		(1600569)
7260	Dealer signs	(487284)		(487284)
7270	Souvenirs	——		
7350	Specification sheets	(772643)		(772643)
7351	Banners and streamers	(32708)		(32708)
7352	Folders, pamphlets and broadsides	752651		752651
7360	Mailings–advertising	265972		265972
7361	Mailings–publicity	23169		23169
7370	Publicity–All Forms	9781		9781
7380	House Organ (For Can. Dist. & Dirs.)			
7390	Sales Training	(122378)		(122378)
7391	Dist. & Dealer Merchandise Plans	——		
7392	Sales Incentive Merchandise	(268001)		(268001)
7398	Promotion & Dem. of PV, other than Chi.	——		
7500	National Exhibits	750000	750000	
7510	Distributor–Dealer Exhibits (Fact. Part)	(16263)		(16263)
7511	Convention Trip Expenses–Sales Com.	549284		549284
7520	Adv. Postage, Express & Freight	(7690)		(7690)
7522	Advertising Travel	——		
7523	Advertising Donations	52793		52793
7524	Advertising Fringe Cost	——		
7526	Advertising Prov. for Co Op–Canadian	4412419		4412419
7527	Advertising Equalization Expense	——		
	Total	$27303753	3202005	24101748
			11.7%	88.3%

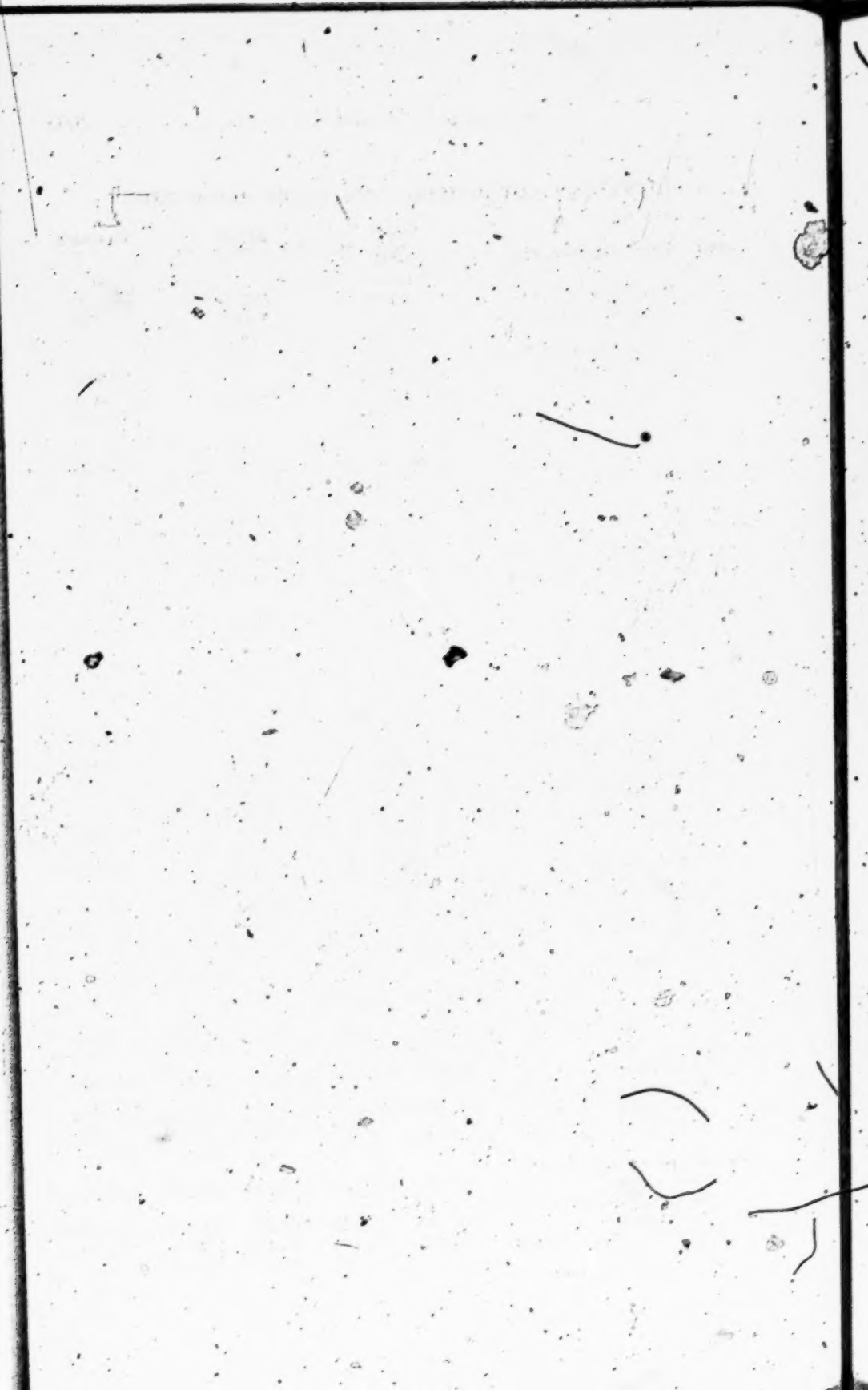


CANADIAN ADVERTISING AND SALES PROMOTION.

		Total	Fixed	Variable
1961	Total expense	279841		
	Magazine space	46773	23386	23387
	Magazine prod.	8126	4063	4063
	Exhibits	7879	7879	
	Telephone directory	1854	1854	
	Other	215209		215209
	Total	279841	37182	242659
			13.3%	86.7%
1962	Total expense	244383		
	Magazine space	71299	35650	35649
	Magazine prod.	6948	3474	3474
	Exhibits	29498	29498	
	Telephone directory	4318	4318	
	Other	132325		132325
	Total	244383	72935	171448
			29.8%	70.1%
1963	Total expense	249818		
	Magazine space	121673	60837	60837
	Magazine prod.	6090	3045	3045
	Exhibits	11787	11787	
	Telephone directory	5727	5727	
	World Series of Golf	18225	18225	
	Other	86316		86316
	Total	249818	99621	150298
			40.0%	60.0%

CANADIAN FRINGE.

	1959	1960	1961	1962	1963
Direct labor fringe					
Total fringe	4933858	4128537	5136707	5431131	5378110
Retirement plan prov. included	2871500	2290961	2910118	2755824	2617559
% PSRP prov. to total	58.2%	55.5%	56.6%	50.7%	48.7%
Factory overhead fringe					
Total fringe	2233062	1991708	2066894	2532216	2641664
Retirement plan prov. included	1443999	1178143	1162974	1406197	1425630
% PSRP prov. to total	64.6%	59.1%	57.1%	55.5%	54.0%



ZENITH RADIO CORPORATION.

Summary of Factory Overhead by Expenses Year Ended December 31, 1960.

	Expense Account	Amount	Fixed		Variable	
02	Non-measurable inspection	148783			148783	
04	Salvage & scrapping material	171070			171070	
05	Setup	124561			124561	
07	Maintenance	271420			271420	
09	Supervision & administrative	2463715	1519974		2187799	
10	Clerical	1244058				
13	Idle time	119083			119083	
14	Overtime premium	156805			156805	
15	Night premium	93366			93366	
16	Union activities	5328	5328			
17	Wage rate variance	210080			210080	
19	Training	222598			222598	
20	Year end inventory	57860	57860			
26	Material handling	1579942			1579942	
27	Tool crib stores	64460	32230		32230	
28	Advance dev. & design of test equip.	16101	16101			
32	Salaries—other	579566	579566			
33	Salaries—time reports	776407	776407			
35	Stationery engineers & electricians	111720	111720			
36	Other indirect labor	110021			110021	
37	Guards	244189	244189			
38	Janitors	296599			296599	
39	Adding missing pts.	20674			20674	
		9068156	3343375	(36.8%)	5744781	(63.2%)
40	Travel	21178			21178	
46	Maintenance	574720	287360	50/50	287360	
47	Telephone & telegraph	106086			106086	
48	Equipment rental	98924			98924	
49	Outside warehousing	47507			47507	
50	Heating	89185	89185			
51	Power & light	245381	245381			
53	Drum reels & spools	6480			6480	
54	Supplies	691802			691802	
55	Outside services	45992			45992	
56	Depreciation	1072053	1072053			
62	Dev. prod. processes—new mfg. pts.	7471	7471			
65	Property taxes	392122	392122			
66	General insurance	72817	72817			
67	Compensation insurance	81401			81401	
68	Employment advertising	30689	30689			
73	Scrap sales	(62423)			(62423)	
74	Rent (net)	(303582)	(303582)			
78	Moving	8370	8370			
79	Rearranging facilities	177758	177758			
80	Demurrage & special switching	53859			53859	
81	Outside trucking	106128			106128	
82	Cafeteria—net	15933	15933			
	Total forward	12068007				

ZENITH RADIO CORPORATION.

Summary of Factory Overhead by Expenses Year Ended December 31, 1960.

	Expense Account	Amount	Fixed	Variable
	Brought forward	12663007	7621731	5041276
83	Excess outside trucking cost	2374		2374
84	Excess freight chgs, due on misdirected shpmts.	392		392
89	Medical fees & supplies	19289		19289
90	Other expense—net	55377		55377
91	Jury duty	359	359	
95	Space	(218998)	(218998)	
98	Billing CR. labor & matl charged to ZSC	(85201)		(85201)
99	Year end inventory	6088	6088	
	Transfers other than space	(174415)		(174415)
80	Fringe cost	1991708	1178143 299392 (36.8%)	514173 (63.2%)
	Difference due to rounding	3		3
	Transfers to engineering dept.	(1920)	(1920)	
	Total	14258063		
175	Factory overhead direct costs	16508	16508	
1790S	Credit from sources other than shipments	(263574)		(263574)
	Miscellaneous charges	615304		615304
	Inventory variation	18783		18783
	Total	14645084		
			6713504 45.8%	7931580 54.2%

ZENITH RADIO CORPORATION.

Summary of Factory Overhead by Expenses Year Ended December 31, 1961.

	Expense Account	Amount	Fixed		Variable	
	Controllable					
101	Supervision hourly	2480693				
102	Clerical hourly	588,265	3193152		1377606	
103	Salaries—other	1492800				
107	Salaried overtime					
120	Small tools labor	11591	5796	50/50	5795	
121	Non-scheduled maintenance labor	315728			315728	
122	General maintenance labor	399050	199525	50/50	199525	
123	Stationary engineering	61000	61000			
124	Salvage and scrap	154369			154369	
125	Set-up	116348			116348	
126	Material handling	1556352			1556352	
129	Development	43281	43281			
130	Engineering projects	37769	37769			
131	Rearranging labor	14763	14763			
132	Janitors	298282			298282	
137	Exhibits—meetings					
138	Miscellaneous projects	12255	12255			
139	Other indirect labor	463180			463180	
140	Overtime premium	410119			410119	
141	Night premium	65970			65970	
143	Idle time	139478			139478	
144	Training	269625			269625	
145	Union activities	4570	4570			
146	Obtain first aid	10156	10156			
197	Wage rate variance	(45509)			(45509)	
		8909135	3582267	40.2%	5326868	59.8%
199	Fringe cost (Balance 873920)	2036894	851316	40.2%	522604	59.8%
	PSRP Portion of fringe		1162974			
201	Office supplies	67184			67184	
202	Postage	10655	10655			
203	Telephone & telegraph	119418			119418	
204	Subscriptions—memberships	4373	4373			
205	Travel & entertainment	26288			26288	
206	Contributions	15	15			
207	General maintenance material	243452	121726	50/50	121726	
208	Rearranging material	37123	37123			
209	Outside services	166460			166460	
210	Equipment rental	19288			19288	
211	Supplies—other	481425			481425	
212	Small tools materials	137113	68557	50/50	68556	
220	Outside warehouse	49009			49009	
221	Returnable containers	19346			19346	
222	Outside trucking	81901			81901	
223	Demurrage & switching	52866			52866	
233	Test sets	(4254)	(4254)			
236	Employment advertising	35827			35827	
237	Compensation insurance	80866			80866	
250	Corporate expenses	24234	24234			
299	Miscellaneous	53933			53933	
	Total forward	12652551				

ZENITH RADIO CORPORATION.

Summary of Factory Overhead by Expenses Year Ended December 31, 1961.

	Expense Account	Amount	Fixed		Variable	
	Brought forward	12652551	6420879		6231672	
307	Billboard space	10	10			
309	TV broadcast time	176	176			
316	Folders rec.	47	47			
321	Spec. sheets		—		—	
323	Sales incentive merchandise		—		—	
332	Mailings		—		—	
334	Publicity		—		—	
338	House organ	18499	18499			
282	Service manuals	212	212			
	Non-controllable					
365	Tool development		—		—	
370	Maintenance—non-scheduled	2362			2362	
369	Corrections	70681			70681	
371	Depreciation	1100020	1100020			
372	Property taxes	418335	418335			
373	Insurance	62788	62788			
374	Heating	66606	66606			
375	Utilities	264349	264349			
376	Rent	2974	2974			
389	Fringe cost see a/c 199		—		—	
398	Accrual—indirect labor	518707			518707	
399	Reversal—indirect labor	(494595)			(494595)	
368	Annual inventory	83555	83555			
	Assessment					
901	Space	2361014	(1) 2361014			
902	Personnel	617578	(1) 617578			
904	Data processing	230115	115057	50/50	115058	
905	Maintenance charges	713055	356527	50/50	356528	
906	Rearranging charges	60063	60063			
907	Expense chargees	2221667	(1) 2221667			
909	Bid proposals		—		—	
978	Moving		—		—	
987	Expense credit—development		—		—	
990	Scrap sales	(81662)			(81662)	
991	Allocation credit		—		—	
992	Billings to subsidiaries		—		—	
993	Expense credit—engineering projects		—		—	
994	Expense credit—maintenance		—		—	
995	Expense credit—rearranging		—		—	
999	Expense credit—other	(6833128)	(6833128)			
	Miscellaneous adjustment	3525			3525	
	Total	14060404				
175	Factory overhead direct costs	12859	12859			
	Billing credit	(226902)			(226902)	
17908	Credit from sources other than ship.	(494408)			(494408)	
	Miscellaneous charges	432986			432986	
	Inventory variation	(85209)			(85209)	
	Total	13699735	6289094	45.9%	7410641	54.1%

ZENITH RADIO CORPORATION.

Summary of Factory Overhead by Expenses Year Ended December 31, 1962.

	Expense Account	Amount	Fixed		Variable	
	Controllable					
101	Supervision hourly	214220	214220			
102	Clerical hourly	15239	15239			
106	Salaries	4777110	3375249		1401861	
107	Salaried overtime	125195			125195	
120	Small tools labor	4602	2301	50/50	2301	
121	Non-scheduled maintenance labor	417193			417193	
122	General maintenance labor	388093	194046		194047	
123	Stationary engineering	57855	57855			
124	Salvage and scrap	181774			181774	
125	Set up	159016			159016	
126	Material handling	1809094			1809094	
129	Development	38657	38657			
130	Engineering projects	40159	40159			
131	Rearrange labor	32585	32585			
132	Janitors	339806			339806	
138	Misc. projects	51856	51856			
139	Other indirect labor	504804			504804	
140	Overtime premium	426239			426239	
141	Night premium	71986			71986	
143	Idle time	183558			183558	
144	Training	306505			306505	
145	Union activities	4240	4240			
146	Obtain first aid	11902	11902			
197	Wage rate variance	45051			45051	
		10208739	4038309	39.6%	6170430	(60.4%)
201	Office supplies	68804			68804	
202	Postage	9431	9431			
203	Telephone and telegraph	137349			137349	
204	Subscriptions and memberships	6707	6707			
205	Travel and entertainment	33285			33285	
207	General maintenance material	373006	186503		186503	
208	Rearrange material	53038	53038			
209	Outside services	77129			77129	
210	Equipment rental	55124			55124	
211	Supplies—other	629577			629577	
212	Small tools material	116236	58118	50/50	58118	
220	Outside warehouse	59137			59137	
221	Returnable containers	40116			40116	
222	Outside trucking	96991			96991	
223	Demurrage and switching	79936			79936	
233	Test sets	(3841)	(3841)			
236	Employment advertising	37694			37694	
237	Compensation insurance	82865			82865	
250	Corporate expenses	33148	33148			
299	Miscellaneous	63489			63489	
306	Billboard prod.	(204)			(204)	
	Total forwarded	12257756				

ZENITH RADIO CORPORATION.

Summary of Factory Overhead by Expenses Year Ended December 31, 1962.

	Expense Account	Amount	Fixed		Variable	
	Brought forward	12257758	5626922		6630834	
321	Special sheets	100	100			
323	Sales incentive merchandise	675	675			
333	House org	21628	21628			
334	Publicity	40	40			
	Non-Controllable					
368	Annual inventory	92092	92092			
369	Corrections	124093			124093	
371	Depreciation	1298893	1298893			
372	Property taxes	497263	497263			
373	Insurance	59098	59098			
374	Heating	86272	86272			
375	Utilities	292088	292088			
376	Rent	5358	5358			
	PSRP Portion		1406197			
389	Fringe cost (Balance 1126019)	2532216	445904	39.6%	680115	60.4%
398	Accrual—indirect labor	1068450			1068450	
399	Reversal—indirect labor	(1068450)			(1068450)	
	Assessment					
901	Space	(A) 2640879	(A) 885677		—	
902	Personnel	722375	722375			
904	Data processing	301416	150708	50/50	150708	
905	Maintenance charges	965389	462694	50/50	482695	
906	Rearrangement charges	617843	617843			
907	Expense charges	(A) 2556421	—		—	
990	Scrap sales	(80043)			(80043)	
991	Allocation credit	(A) (4313123)	—		—	
992	Billings to subsidiaries	(389347)			(389347)	
993	Expense credit— engineering projects	(46235)	(46235)			
994	Expense credit—maintenance	(514811)			(514811)	
995	Expense credit—rearrangement	(38653)	(38653)			
999	Expense credit—other	(2616510)	(2616510)			
	Difference due to rounding	693			693	
	Total	17076266	—		—	
175	Factory overhead direct costs	55408	55408			
17908	Credit from sources other than shipments	(1036302)			(1036302)	
	Inventory variation	(36337)			(36337)	
	Miscellaneous charges— Scrap, etc.	472547			472547	
	Transfers to engineering dept.	(8801)	(8801)			
	Total	16522781	8702427		7730854	
			53.2%		46.8%	

ZENITH RADIO CORPORATION.

Summary of Factory Overhead by Expenses Year Ended December 31, 1963.

	Expense Account	Amount	Fixed		Variable	
	Controllable					
101	Supervision hourly	259223	259223			
102	Clerical hourly	17952	17952			
106	Salaries	5202470	3523862		1678608	
107	Salaried overtime	125577			125577	
120	Small tools labor	5306	2653	50%	2653	
121	Non-scheduled maintenance labor	423813			423813	
122	General maintenance labor	412271	206135		206136	
123	Stationary engineering	76110	76110			
124	Salvage and scrap	183602			183602	
125	Set-up	168195			168195	
126	Material handling	1996417			1996417	
129	Development	50220	50220			
130	Engineering projects	42043	42043			
131	Rearranging labor	34785	34785			
132	Janitors	393433			393433	
137	Exhibits—meetings	8			8	
138	Miscellaneous projects	38103	38103			
139	Other indirect labor	549495			549495	
140	Overtime premium	405340			405340	
141	Night premium	72785			72785	
143	Idle time	202695			202695	
144	Training	374849			374649	
145	Union activities	7933	7933			
146	Obtain first aid	11376	11376			
197	Wage rate variance	48763			48763	
		11102764	4270395	(38.5%)	6832369	(61.5%)
201	Office supplies	76253			76253	
202	Postage	11212	11212			
203	Telephone & telegraph	140823			140823	
204	Subscriptions—memberships	8047	8047			
205	Travel & entertainment	36141			36141	
207	General maintenance material	419687	209844	50%	209843	
208	Rearranging material	87462	87462			
209	Outside services	56646			56646	
210	Equipment rental	24947			24947	
211	Supplies—other	654676			654676	
212	Small tools material	227279	113640	50%	113639	
220	Outside warehouse	28398			28398	
221	Returnable containers	65159			65159	
222	Outside trucking	93883			93883	
223	Demurrage & switching	92841			92841	
233	Test sets	(7202)	(7202)			
236	Employment advertising	28153			28153	
237	Compensation insurance	116157			116157	
250	Corporate expenses	12288	12288			
299	Miscellaneous	67632			67632	
	Total forward	13343246				

ZENITH RADIO CORPORATION.

Summary of Factory Overhead by Expenses Year Ended December 31, 1963.

	Expense Account	Amount	Fixed		Variable	
	Brought forward	13343246	6206312		7136934	
307	Billboard space	4	4			
308	Billboard prod.					
311	Radio time	150	150			
321	Spec. sheets					
328	Sales incentive merchandise					
332	Mailings	320	320			
334	Publicity	876	876			
333	House organ	21938	21938			
	Non-Controllable					
365	Tool development	4499	2250	50	2249	
368	Annual inventory	100129	100129			
369	Corrections	129933			129933	
371	Depreciation	1626030	1626030			
372	Property taxes	740743	740743			
373	Insurance	83585	83585			
374	Heating	125024	125024			
375	Utilities	365583	365583			
376	Rent	5010	5010			
	PSRP portion		1415630			
389	Fringe cost (Balance 1226034)	2641664	472023	(38.5%)	754011	(61.5%)
398	Accrual—indirect labor	2049836			2049836	
399	Reversal—indirect labor	(2049836)			(2049836)	
	Assessment					
901	Space	(A) 3529485	(A) 154777			
902	Personnel	800923	800923			
904	Data processing	336728	168364	50/50	168364	
905	Maintenance charges	980847	490423	50/50	490424	
906	Rearranging charges	341288	341288			
907	Expense charges	(A) 1989388	—		—	
909	Bid proposals	7	7			
978	Moving	121211	121211			
987	Expense credit—development	(32971)	(32971)			
990	Scrap sales	(75862)			(75862)	
991	Allocation credit	(A) (5364096)	—		—	
992	Billings to subsidiaries	(468102)			(468102)	
993	Expense credit—engineering projects	(53109)	(53109)			
994	Expense credit—maintenance	(495872)			(495872)	
995	Expense credit—rearranging	(39514)	(39514)			
999	Expense credit—other	(2155976)	(2155976)			
	Difference due to rounding	(76)			(76)	
	Total	18603033	—		—	
175	Factory overhead direct costs	43781	43781			
1790S	Credit from sources other than ship.	(1432087)			(1432087)	
	Miscellaneous charges		—		—	
	Inventory variation	(196873)			(196873)	
	Total	17017854	9504185	55.8%	7513669	44.2%

ZENITH RADIO CORPORATION.

Summary of a/c 09, Supervision and Administrative Expense, and a/c 10, Clerical for the Years 1959 and 1960.

2/13/64

Responsibility No.	Name	1959 09 Sup.	1959 10 Clerical	1960 09 Sup.	1960 10 Clerical		1959 Fixed	1959 Var.	1960 Fixed	1960 Var.
3011	TV chassis assembly	7593548	386368	8562167	489552			7979916		9051719
3012	TV final assembly	12506390	573516	15488745	700513			13079906		16189258
3013	Radio assembly & balance	2132420	228732	4161054	77550			2361152		4238604
3014	Space command assembly & test	1202083	3700	2054777	79895			1205783		2134672
3015	Hi Fi final assembly & test	13037256	548185	3822097	81793			13585451		3903890
3016	Hi Fi chassis assembly	—	—	448655	—			—		448655
3017	TV final assembly	262991	2300	6057497	458656			265291		6516153
In 1960 3040 / In 1959 3041	Components & wire	2659548	844176	2791677	1053088			3503724		3844765
3052	Hi Fi final assembly	—	—	—	—		—	—	—	—
3070	Quality control	13981125	4264360	10821083	4045052	F	18245485		14866135	
3213	KF contract assembly	—	—	—	—		—	—	—	—
3310	Sub-assembly	12659158	608231	12581425	1043751			13267389		13625176
3320	Record players & changers	500183	—	454875	23239			500183		478114
3321	Hearing aid	3629324	454697	3931738	491339	F	4084021		4423077	
3331	AM-FM radio assembly	5043582	317103	4766333	130040			5360685		4896373
3340	Components	24381599	1631718	27136986	1886128			26013317		29023114
3350	Press room	4563092	1514883	4433680	1250050			6077975		5683730
3355	Machine shop, riveting & welding	3262231	89614	3189722	77840			3351845		3267562
3370	Quality control	7082626	1020479	8964765	1074600	F	8103105		10059365	
3460	Assembly, repair & test	3306042	—	5882081	1000			3306042		5883081
3470	Quality control	368355	77981	1121842	358178	F	446336		1480020	
3510	Tooling	4930359	977073	5001910	822810	F	5907432		5824720	
3530	Test equipment	4108511	342901	3946962	334884	F	4451412		4281846	
In 1960 3550 / In 1959 3551	Wood shop	998750	403142	1165348	373151	F	1401892		1538499	
3570	Space	7988100	963249	8324498	1121558	F	8951349		9446056	
3590	Personnel	12563616	12531459	12937409	14046069	F	25095075		26983478	
3610	Material handling	45075724	55850117	53215419	56379572			100925841		109594991
3640	Factory general	26827817	34899495	25368886	35512600	F	61727312		60881486	
3671	Purchasing & expediting	1000000	443611	3000000	1383072	F	1443611		4383072	
3680	Process engineering	4891045	1128317	5585951	1103950	F	6019362		6689901	
3661	Machine development	—	—	995768	—	F	—	—	995768	—
	Totals	226555471	120105417	246233350	124399930		145876392	200784500	151853423	218779857
	Unreconciled difference	1998100	623800	138100	5900	F	2621900	—	144000	
	Totals	228553575	120729217	246371450	124405830		148498292	200784500	151997423	218779857
							349282792		370777280	

ZENITH RADIO CORPORATION.

A/C 106 Salaries—Analysis by Cost Center 1963-62.
A/C 103-2-1 Salaries—Analysis by Cost Center 1961.

2/14/64

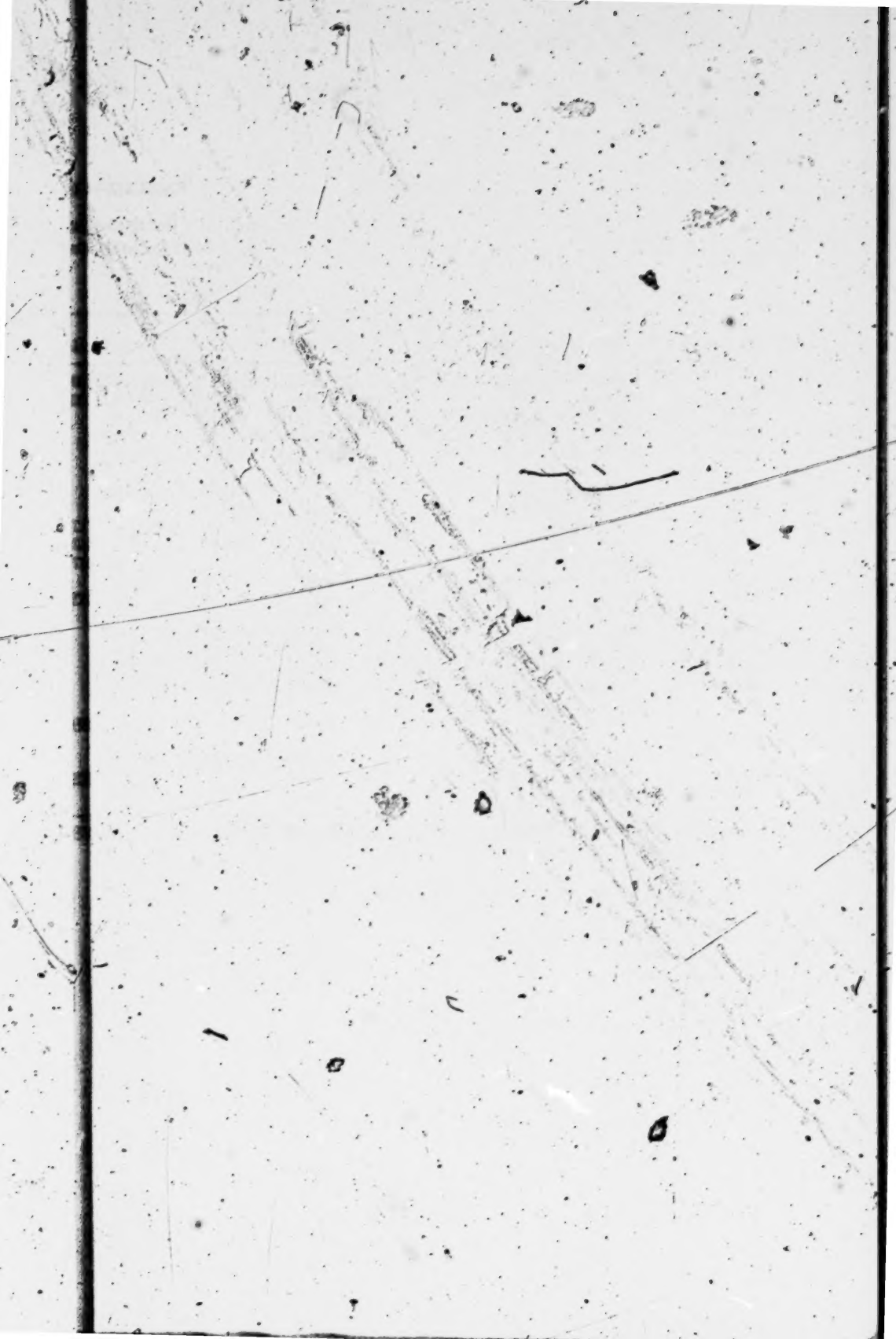
Center	Department		1963 Amount	1963 Fixed		1963 Variable	1962 Amount		1962 Fixed	1962 Variable	1961 Amount A/C 103	1961 Amount A/C 102	1961 Amount A/C 101	1961 Fixed	1961 Variable
3001	Production Admin.	F	112233	112233			111649		111649		14742	7719	70540	98001	
3010	Machine Development	F	51058	51058			46172	#3400	46172		7625		28350	35975	
3020	Test Equipment	50/50	107021	53510	50/50	53511	103460	#3300	51730	51730		3608	29649	16628	16629
3100	Plt 1 Administration	F	25710	25710			24934		24934		3807	4954	18440	26701	
V	V Production		17987			17987	8100			8100		1500	8132		9632
3110	V Bldg 5 Production		97498			97498	100505			100505		4423	90796		95219
3120	V Woodshop		21933			21933	20526			20526		3872	16880		20252
3130	V Bldg. 8 Prod.		161726			161726	164343			164343		13810	165580		179390
3140	V Bldg. 6 Prod.		146794			146794	161139			161139		4955	182744		187699
3170	V Maintenance & Plant Protection	50/50	67097	33548		33549	65049		32524	32525		3630	61883	82756	82757
3180	V Process Engr'g	F	104621	104621			106849		106849		77043	5219	18978	101240	
3200	Plt 2 Administration	F	54158	54158			53926		53926			4966	30655	35621	
3210	V 2nd Fl. Prod. Components		154137			154137	156926			156926	4800	13022	152608		170430
3220	V Ceramic Condenser		33138			33138	31888			31888		4200	23154		27354
3230	V 2nd Fl. Prod. Units & microphone assembly		119097			119097	119959			119950		4186	102973		107159
3240	V 3rd Fl. Production		216521			216521	222035			222035		15054	187331		202385
3250	V 1st Fl. Fabricating		90551			90551	87539			87539		11720	71813		83533
3260	V Prod. Control Admin.	F	11594	11594			10592		10592				10152	10152	
3270	V Contracts	F	27823	27823			22271		22271						
3280	V Tooling & facilities	F	321872	321872			309229		309229		142147	23862	109170	275179	
3290	V Quality Control	F	97801	97801			92690		92690		8042	6960	91298	106300	
3300	Plt 5 Administration	F	9898	9898							50513			50513	
3310	V H. Aid Assn. & Test	F	8725	8725											
3360	V Prod. Control Admin.	F	6861	6861											
3370	V Process Engr'g	F	6101	6101											
3380	V Industrial Engr'g	F	2680	2680											
3390	V H. Aid Quality Cont.	F	3079	3079											
3400	Plt 6 Administration	F	16017	16017											
V	V Production		11731			11731									
3410	V Chas Assn Admin		18702			18702									
V	V Production		58072			58072									
3420	V Stereo Prog Pkg. & BA		11734			11734									
3430	V Final Assem Adm		12807			12807									
V	V Production		53588			53588									
3450	V Quality Control	F	33453	33453											
3460	V Prod. Control Adm.	F	19174	19174											
V	V Production		89258			89258									
3470	V Process Engr'g	F	17764	17764											
3480	V Industrial Engr'g	F	15342	15342											
3500	Plt 5 Administration	F	5516	5516			18137		18137		5590	5193	26451	37234	
3510	V Bal & Fin test H.		5261			5261	17679			17679		84	6310		6344
3540	V Chas Assm Hi Fi		10905			10905	39209			39209			36864		36864
3550	V Final Assm Hi Fi		8757			8757	31547			31547			35252		35252
3560	V Prod. Control	F	12830	12830			44079		44079		16379	6253	19465	42117	
3570	V Repair Hi Fi		2191			2191	6443			6443			5983		5983
3590	V Quality Control	F	5105	5105			18922		18922			2878	12232	15110	
	Carry Forward		2485921	1056473		1429448	2190797		938718	1252084	330188	151518	1613653	878527	1216832

ZENITH RADIO CORPORATION.

A/C 106 Salaries—Analysis by Cost Center 1963-62.
A/C 103-2-1 Salaries—Analysis by Cost Center 1961.

2/14/64

Center		Department		1963 Amount	1963 Fixed		1963 Variable	1962 Amount	1962 Fixed	1962 Variable	1961 Amount A/C 103	1961 A/C 102	1961 A/C 101	1961 Fixed	1961 Variable
		Brought Forward		2485921	1056478		1429448	2190797	938713	1252084	330188	151518	1613653	878527	1216832
3610	V	Salvage		26782			26782	30452		30452		10496	23678		34168
3620	V	Requirement Control	F	72914	72914			71977	71977		29626	17235	21874	68735	
3630	V	Material Control	F	391895	391895			396173	396173		160418	39629	224963	425010	
3640	V	Scheduling	F	58954	58954			56343	56343		15169	11729	31803	58701	
	Misc.														
3700		Industrial Engr.	F	57160	57160			404256	404256		268831	30593	69367	368791	
3710		Factory Budgets	F	32581	32581										
3720		Time Study	80/20	89425	71540	(80 F)	17885								
3730		Time Study Plt 2	80/20	168494	134795	(80 F)	33699								
3740		Inspection Process		27763			27763								
3750		Methods & Sugg Sys.	F	50468	50468										
3800		Traffic	50/50	63377	31688		31689	61125	30562	30563	21167	21528	18060	30377	30378
3900		Quality Control	F	179437	179437			179452	179452		38036	37549	96003	171588	
2110		Personnel	F	304837	304837	(F)		280696	280696		39455	99178	121746	260379	
2120		Medical	F	63415	63415			52357	52357		19069	4788	29788	53593	
2200		Quality Assur.	F	81515	81515			81159	81159		38864	13832	27410	79906	
2300		Purchasing	F	749639	749639			692265	692265		433850	113954	83766	631570	
3251	Plt 2	Stores, Expediting & Matl Handling		88458			88458	66252		66252		4255	64704		68959
3262	V	Inventory Control & Scheduling	F	183716	183716			191296	191296		96327	18218	42814	159359	
3263	V	Ship, Receiving		22884			22884	22510		22510		12350	14919		27269
3600	Plt 1	Prod. Control Adm.	F	8335	8335							1416	5200	6616	
Totals per Overhead Schedule				5202470	3523862		1678608	4777110	3375249	1401861	1492900	588265	2489693	3198152	1377606
												4570758			

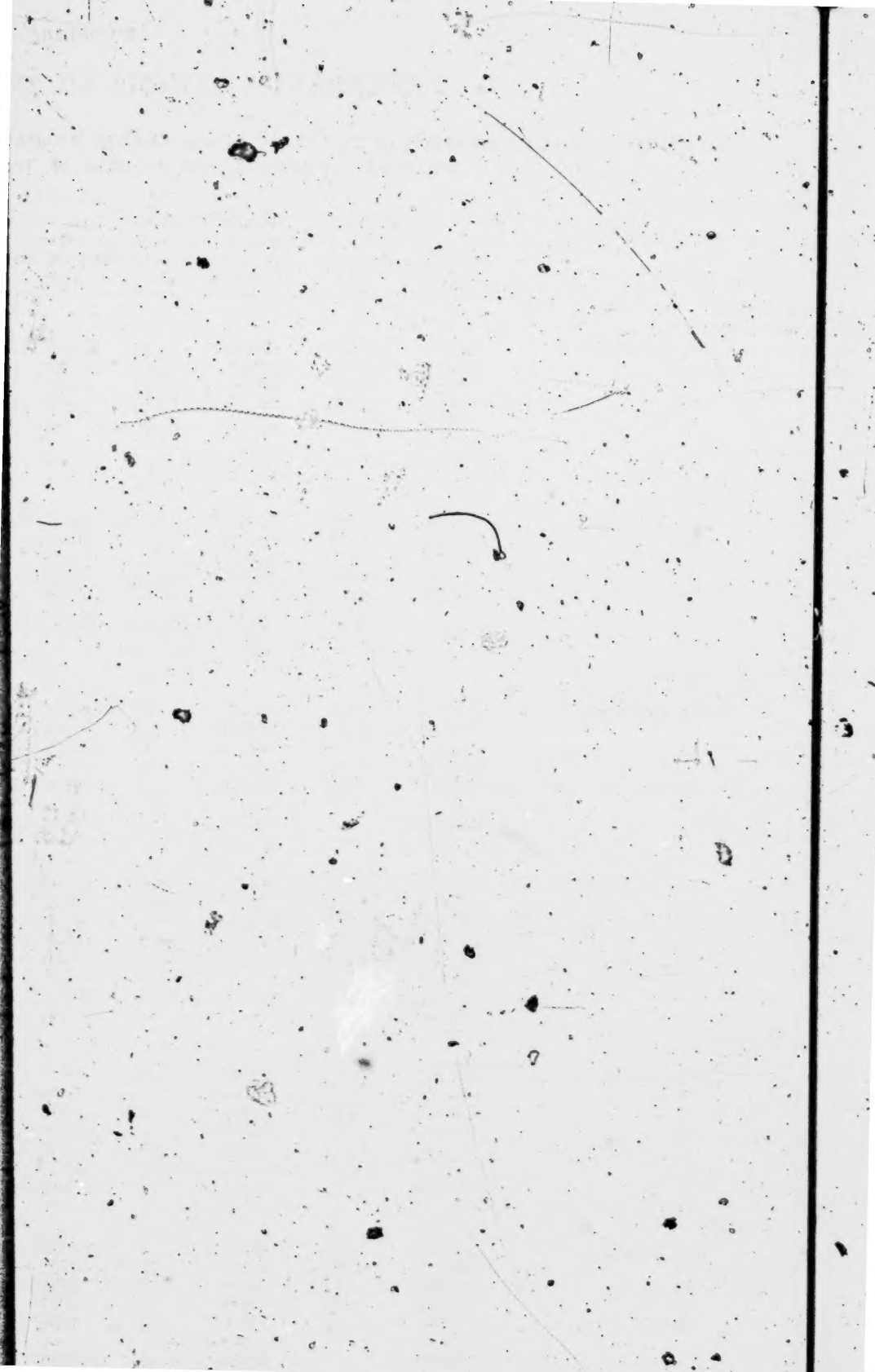


		Parent Total		Purchase Discount. Cana TV	Cana Radio
1959	Material at std	125569718		977758	
	Material price var.	331258		2254	
	Misc. mat. cost	1746554		15445	
		127647530		995457	
	Purchase Discount	1872370			
	%	1.47%		1.47%	
	Purchase Discount			14633	
1960	Material at std.	110534620		1019675	274598
	Material price var.	(712156)		(8159)	(154)
	Misc. mat. cost	1148566		11019	2444
		110971030		1022535	276798
	Purchase Discount	1688870	@1.52%	15548	4207
	%	1.52%			
1961	Material at std.	119591505		1437598	302132
	Material price var.	(1848631)		(24166)	(5091)
	Misc. mat. cost	1793120		21686	4557
		119535994		1435118	301598
	Purchase Discount	1726398	@1.44%	20666	4343
	%	1.44%			
1962	Material at std.	138504185		990014	223386
	Material price var.	(1405655)		(12798)	(5201)
	Misc. mat. cost	2738661		20212	4660
		139837191		997428	222845
	Purchase Discount	1957615	@1.40%	13964	3120
	%	1.40%			
1963	Material at std.	158567037		1295683	204171
	Material price var.	(2371156)		(21821)	(4414)
	Misc. mat. cost	2587516		21596	2729
		158783397		1295958	202486
	Purchase Discount	2283214	@1.44%	18662	2916
	%	1.44%			

DEFENDANT'S EXHIBIT NO. 220.

LOST SALES AND LOST PROFITS IN TELEVISION AND RADIO IN CANADA, UNITED KINGDOM AND AUSTRALIA, JUNE 1, 1959 TO MAY 31, 1963.

	Market (Units)	Zenith Share of Market (%)	Zenith Share of Market (Units)	Zenith Sales in Market (Units)	Lost Sales in Market (Units)	Zenith Ave. Fact Sell. Pr. to Canada (US $)	Lost Sales in Market (US $)	Profit Applying to Add'l Volume (%)	Lost Profit on Lost Sales (US $)
Canada									
Television									
1959 6/1-12/31	235900	15.616	36838	7343	29495	146.73	4326791	16.14	708028
60	338400	17.992	60885	13396	47489	145.68	6918198	16.14	1116597
61	355200	17.638	62650	17295	45355	144.16	6538377	20.63	1348867
62	420200	17.475	73430	14195	59235	136.80	8539318	22.06	1883774
63 1/1-5/31	147000	21.712	31917	4766	27151	128.88	3485645	22.08	769630
	1496700		265720	56995	208725		29808329		5826896
Radio									
1959 6/1-12/31	270200	12.839	34691	10238	24453	35.24	861724	16.02	138048
60	393600	12.316	48476	16935	31541	28.77	907435	16.02	145371
61	296400	11.332	33588	18906	14682	26.59	390394	17.48	68241
62	273300	10.664	29145	15062	14083	27.12	381931	19.80	75622
63 1/1-5/31	89300	12.937	11553	4059	7494	27.59	206759	20.90	43213
	1322800		157453	65200	92253		2748243		470495
United Kingdom									
Television									
1959 6/1-12/31	1619100	3.904	63210	0	63210		9401223		1517357
60	1816800	4.498	81720	1	81719		11904824		1921439
61	1508400	4.410	66520	21	66499		9586496		1977694
62	1370400	4.369	59873	28	59845		8186796		1806007
63 1/1-5/31	557500	5.428	30261	15	30246		3882961		857362
	6372200		301584	65	301519		42962320		8079859
Radio									
1959 6/1-12/31	748300	3.210	24020	1488	22532		794028		127203
60	1552000	3.079	47786	1604	46182		1328656		212851
61	2429000	2.833	68814	1274	67540		1795889		813921
62	2384000	2.666	63557	1319	62238		1687895		334203
63 1/1-5/31	982000	3.234	31758	388	31370		865498		180889
	8095300		235935	6073	229862		6471966		1169067
Australia									
Television									
1959 6/1-12/31	239800	1.562	3746	2	3744		556845		89875
60	370300	1.799	6662	9	6653		969209		156430
61	299700	1.764	5287	2	5285		761886		157177
62	284600	1.748	4975	1	4974		680443		150106
63 1/1-5/31	117800	2.171	2547	0	2547		326984		72198
	1311700		28217	14	28203		3295367		625786
Radio									
1959 6/1-12/31	138100	1.284	1773	1	1772		62445		10004
60	279800	1.232	3447	9	3438		98911		15846
61	287700	1.133	3260	3	3257		86004		15138
62	284800	1.066	3036	12	3024		82011		16238
63 1/1-5/31	129700	1.294	1678	23	1655		45661		9543
	1120100		13194	48	13146		375632		66769
							85721857		16238872



Sources of Industry Statistics.

Canada

Canadian Statistical Review, Historical Summary 1963 Edition Table 50, by Dominion Bureau of Statistics.

Canadian Statistical Review, October, 1963 Table 50 by Dominion Bureau of Statistics.

Radio—Producers sales of home sets and portables.

Television—Producers sales of television.

United Kingdom

Annual Abstract of Statistics, 1963, Table 195 by Central Statistical Office.

Monthly Digest of Statistics, October, 1963, Table 78 by Central Statistical Office.

Radio—Home sales of radio less estimated car radios.

Television—Home sales of television.

Australia

Monthly Bulletin of Production Statistics, October, 1960, March, 1963, September, 1963, by Commonwealth Bureau of Census and Statistics.

Radio—Production of portable and other radio sets.

Television—Production of television only sets.

Canadian Statistics.

		Monthly Average	Total
Television			
1959 6/1–12/31	(1)	33.700	235900
1960	(1)	28.200	338400
1961	(1)	29,600	355200
1962	(2)		420200
1963 1/1–5/31	(2)		147000
Radio (Home sets and portables)			
1959 6/1–12/31	(1)	38.600	270200
1960	(1)	32.800	393600
1961	(1)	24.700	296400
1962	(2)		278300
1963 1/1–5/31	(2)		89300

(1) Canadian Statistical Review, Historical Summary, 1963.

(2) Canadian Statistical Review, October, 1963.

U. K. Statistics.

Annual Abstract of Statistics 1963—Table 195	Production: Radio Sets Transistor	Radio Sets Other	Car Radios	Radiograms	Television Sets
1959	1,381,000	—— 1,834,000	277,000	176,000	2,863,000
60	1,250,000	714,000 2,504,000	296,000	244,000	2,141,000
61	2,417,000	278,000 3,074,000	199,000	180,000	1,256,000
62	2,517,000	84,000 2,976,000	172,000	203,000	1,463,000

Monthly Digest of Statistics Oct. 1963—Table 78	Production: Radio & Radiograms	Television Sets	Home Sales, excluding radiograms & export: Radio Sets (1)	Television Sets
1959*	1,836,000	2,863,200	1,560,000	2,775,600
60*	2,508,000	2,140,800	1,848,000	1,816,800
61*	3,072,000	1,256,400	2,628,000	1,508,400
62*	2,976,000	1,462,800	2,556,000	1,370,400
63**	1,089,000	636,400	1,054,000	557,500

* Corrected from monthly averages.

** (5 months)

Use the following	Home Sales excluding car radios, radiograms and export	
	Radio Sets	Television Sets
1959 (6/1–12/31)	748,300	1,619,100
1960	1,552,000	1,816,800
1961	2,429,000	1,508,400
1962	2,384,000	1,370,400
1963 (1/1–5/31)	982,000	557,500

(1) Est. car radios included
1959—277,000
1960—296,000
1961—199,000
1962—172,000
1963— 72,000

Australian Production.

Periods Reported			Radio Sets (excl. car and radiograms)		Periods Required		
1958-59	7/1–6/30	(1)	214100	17800 120300	1959	6/1–12/31	138100
1959-60	7/1–6/30	(2)	240700	120400 159400	1960		279800
1960-61	7/1–6/30	(3)	318800	159400 128300	1961		287700
1961-62	7/1–6/30	(3)	256700	128400 156400	1962		284800
1962-63	7/1–6/30	(3)	312800	129700	1963	1/1– 5/31	129700

Television			Television Sets (excl. comb.)				
1958-59		(1)	305100	25400 214400	1959	6/1–12/31	239800
1959-60		(2)	428800	214400 155900	1960		870300
1960-61		(3)	311800	155900 143800	1961		299700
1961-62		(3)	287700	143900 140700	1962		284600
1962-63		(3)	281400	117300	1963	1/1– 5/31	117300

(1) Per Monthly Bulletin of Production Statistics, October, 1960.
(2) Per Monthly Bulletin of Production Statistics, March, 1963.
(3) Per Monthly Bulletin of Production Statistics, September, 1963.

DEFENDANT'S EXHIBIT F-10.

Hazeltine Re... , Inc.
vs. Zenith Radio Corporation
Defendant's Exh. No. F-10
C.A. No. 59-C-1843

HAZELTINE RESEARCH CORPORATION

59-25 LITTLE NECK PARKWAY
LITTLE NECK 62, N. Y.

TELEPHONE FLUSHING 7-8700

RECEIVED
JUN 29 1959
Zenith Patent Department

June 25, 1959.

DOCKETED
6-29-59

FILED
JUL 14 1965
AT ... O'CLOCK
ELBERT A. WAGNER, JR.
CLERK

F. W. Crotty, Esq.
Vice President, Patents
Zenith Radio Corporation
6001 Dickens Avenue
Chicago 39, Illinois

Dear Frank:

This is in reply to your letter of June 23, raising a number of questions relative to the proposed Hazeltine license agreement to Zenith which we discussed last week. I will take up the several points in order.

1. The 50-80-100% formula does apply to all of the terms of the standard license agreement except for color TV apparatus. Specifically, the same percentages would apply to the lump sum figure, if elected.

2. While I always hesitate to condense or simplify just what is covered by a patent claim, I think that your expression of the substance of the Loughren AGC patent does represent an essential and principal distinction from prior art AGC circuits. There are, of course, also other essential relationships defined by the claim, such as that the composite video applied to the AGC tube should include the D.C. component, but I believe that relationship existed in prior AGC circuits.

3. With respect to the RCA L...nsee Bulletin, the information you asked for is includ... my letter of June 22, which crossed yours in the mail.

When you have had an opportunity of completing your "homework" I would be glad to sit down with you and discuss the matter further.

With kind regards,

Sincerely,

PLAINTIFF'S EXHIBIT NO. 36.

UNITED STATES DISTRICT COURT,

For the District of Delaware.

Zenith Radio Corporation,
Plaintiff,
vs.
Radio Corporation of America, et al.,
Defendants.
} Civil Action No. 982.

PLAINTIFF'S REPLY TO COUNTERCLAIMS OF DEFENDANTS, RADIO CORPORATION OF AMERICA, GENERAL ELECTRIC COMPANY, AND WESTERN ELECTRIC COMPANY.

For convenience in this reply the term counterclaim is used to designate the latest filed counterclaim or amended counterclaim of each defendant respectively. Plaintiff replying to the counterclaims of defendants, Radio Corporation of America, hereinafter called RCA; General Electric Company, hereinafter called General Electric; and Western Electric Company, Incorporated, hereinafter called Western Electric, says:

With Respect to Counterclaim of RCA:

1. Plaintiff admits that RCA's counterclaim is made under the patent statutes of the United States but denies each and every other allegation of paragraph 6 thereof.

2. Plaintiff admits that RCA is the record owner of the title to the patents listed in Schedule A attached to its counterclaim but denies each and every other allegation of paragraph 7 thereof.

3. Plaintiff admits that defendant RCA threatened it with suit on patents owned or controlled by it or by the other defendants if plaintiff continued to manufacture and sell radio apparatus without license and admits that it is manufacturing and selling and intends to continue to manufacture and sell the radio apparatus referred to in paragraph 8 of RCA's counterclaim without license or consent of RCA but denies that said apparatus utilizes any inventions validly covered by any of the Letters Patent referred to in said paragraph 8.

4. Plaintiff denies each and every allegation of paragraph 9 of RCA's counterclaim.

With Respect to Counterclaim of General Electric:

5. Plaintiff admits that General Electric is the record owner of title to the patents listed in Schedule A attached to General Electric's counterclaim but denies the remaining allegations of paragraph 4 of said counterclaim.

6. Plaintiff admits that defendant RCA threatened it with suit on patents owned or controlled by it or by General Electric if plaintiff continued to manufacture and sell radio apparatus without license and admits that it is manufacturing and selling and intends to continue to manufacture and sell without the consent of General Electric or RCA the radio apparatus referred to in paragraph 5 of General Electric's counterclaim but denies that said apparatus utilizes any inventions validly covered by any of the Letters Patent referred to in said paragraph 5 and denies the remaining allegations of said paragraph.

7. Plaintiff denies the allegation of paragraph 6 of General Electric's counterclaim.

With Respect to Counterclaim of Western Electric:

8. Plaintiff admits that defendant Western Electric is the record owner of the title to the patents listed in Exhibit A attached to Western Electric's counterclaim but

denies each and every other allegation of paragraph 14 of said counterclaim.

9. Plaintiff admits that defendant RCA threatened it with suit on patents owned or controlled by it or by Western Electric if plaintiff continued to manufacture and sell radio apparatus without license and admits that it is manufacturing and selling and intends to continue to manufacture and sell radio apparatus without license or consent of Western Electric or RCA but denies that said apparatus utilizes any inventions validly covered by any of the Letters Patent referred to in paragraph 15 of Western Electric's counterclaim.

10. Plaintiff denies the allegations of paragraph 16 of Western Electric's counterclaim.

With Respect to the Counterclaims of RCA, General Electric and Western Electric

11. Plaintiff, further answering said counterclaims, alleges on information and belief that the patents asserted by defendants RCA, General Electric and Western Electric in their counterclaims are part of a pool of patents and patent rights which were acquired by defendants and have been and are being asserted against plaintiff and others who manufacture and sell radio apparatus by RCA, both alone and with the aid and assistance of the other defendants and by the other defendants alone and in concert with RCA, as part of a plan and conspiracy to dominate and monopolize the entire electronics field including the radio, phonograph and allied fields to divide said fields among themselves and dominate and control the operation of others in said fields and to monopolize patents in said fields, to monopolize patent licensing in said fields and to restrain trade and competition therein in violation of the anti-trust laws and that said patents are, therefore, un-

enforceable. In support thereof, plaintiff, on information and belief, alleges:

(a) Said electronics field includes not only the radio field but also fields such as communication over wires, public address systems, talking moving pictures, facsimile reproductions, X-ray apparatus, medical devices, power control and conversion systems and also other fields in which vacuum-tubes and other radio instrumentalities are used. Said radio field includes, among other things, ship-to-ship radio, ship-to-shore radio, radio telegraph communication, transoceanic radio telegraph communication, radio broadcast transmission and reception including television commercial radio communication, and the manufacture, use and sale of transmitting and receiving apparatus therefor including parts such as radio vacuum tubes. Said phonograph field includes, among other things, mechanically operated phonographs, electrically operated phonographs, and radio phonograph combinations, including parts therefor such as records, vacuum-tubes and the like.

(b) Said plan and conspiracy embraces not only the United States but also countries foreign thereto and embrace world domination divided among the aforesaid companies and foreign companies who were and are actual or potential competitors. Among the foreign companies involved by direct agreements or mesne agreements were or are: Marconi's Wireless Telegraph Co. (Ltd.), known as the British Marconi Company; the Gesellschaft Fuer Drahtlose Telegraphic, m. b. H of Germany, known as the Telefunken Company; Compagnie Generale de Telegraphic sans Fils, a French company; N. V. Philips Gloeilamphenfabrieken, known as Philips Company of Holland; International General Electric Company, Austrailian General Electric Company, China General Edison Company, Inc., Compania General Electric do Brazil, South African General Electric Company, Ltd., Cia. General Electric Sud-

americana, Inc., and Mexican General Electric Company; international companies affiliated with American Telephone & Telegraph Company and, international companies affiliated with Westinghouse Electric & Manufacturing Company.

It was, and, with unimportant modifications, still is, part of said plan and conspiracy to secure and perpetuate said domination, monopoly and division of fields among the several parties by exclusive agreements under the guise of patent licenses under masses of undisclosed and unknown present and future patents, by agreements to cooperate in the enforcement of patents in aid of the exclusive commercial fields, and by agreements to cooperate in procurement of additional patents, to systematically funnel them from all sources in this country and abroad into the control of the conspiring companies aforesaid and to concentrate in the hands of each of said companies the power to sue, to threaten or to restrictively license under the entire pool of massed patents in its particular agreed field. Said plan and conspiracy were initiated, implemented and effectuated by means of the agreements, among others, identified in the schedule hereto annexed entitled "Agreement Schedule."

(c) Said plan and conspiracy began in or about 1919 and has continued and is still continuing without change in purpose or effect. In 1919, the defendant RCA was caused to be organized by defendant General Electric, the largest company in the United States in the electrical field, and one of the largest in the world. RCA was caused to acquire, pursuant to arrangements made by General Electric, the entire assets and patent rights of Marconi Wireless Telegraph Company of America, Inc., the wholly-owned subsidiary of the British Marconi Company which was one of the then two dominant companies in world-wide radio communication. The United States properties and patents of the other of the two dominant companies, the Telefunken

Company of Germany, had been seized by the Alien Property Custodian and acquired by the Navy Department and thus removed from the competitive field. Thereafter and beginning in 1919, General Electric, Westinghouse Electric Company, one of the largest electrical manufacturing companies in the United States (then Westinghouse Electric and Manufacturing Company and hereinafter referred to as Westinghouse), and American Telephone and Telegraph Company (hereinafter referred to as A. T. & T.) a dominant company in telephone communications, acquired ownership and control of RCA, and RCA, both alone and with the aid and assistance of the other defendants, and the other defendants alone and in concert with one another and with RCA, entered upon the aforesaid plan and conspiracy to monopolize and dominate the entire radio, phonograph and allied fields, to divide said fields among themselves, to dominate and control the operations of others in said fields, to monopolize patents in said fields, to monopolize patent licensing in said fields and to restrain trade and eliminate competition therein. To that end, they entered into agreements and patent licenses dividing the several fields and parts thereof among themselves and eliminated from competition, by purchase and otherwise, companies which did, or might, compete; among others, the International Radio Telegraph Company, the Wireless Specialty Apparatus Company, the United Fruit Company and the Federal Telegraph Company of California. Further, they entered into agreements and patent cross licenses concentrating in RCA exclusive rights in the radio field under all patents and patent rights of General Electric, Westinghouse and A. T. & T. (except for limited rights reserved or conveyed to General Electric, Westinghouse and A. T. & T. and its subsidiaries Western Electric Company, Incorporated and Bell Telephone Laboratories, among others) or flowing to said companies from other sources. Further, to the same

end, RCA, and the aforementioned companies, alone and in concert, adopted a policy of acquiring or controlling, and did acquire and control large numbers of patents and patent rights including patents on alternatives and substitutes even though not valid or not necessary to operations of RCA or of said other companies or not intended for use or used by RCA or said other companies, providing only that they purported to cover alternatives or substitutes or that the language of the claims of said patents was broad enough apparently to dominate some existing or future process or apparatus or part thereof in the radio, phonograph or allied fields. In furtherance thereof said companies agreed to interchange patent and other information on a confidential basis, to cooperate in patent office prosecutions, to share cost of patents and to aid each other in enforcing patents in their respective fields. Agreements among themselves and with other companies in this and foreign countries were established which systematically funneled into the control of RCA, masses of patents originating with said companies and other leading companies throughout the world for many years in the future. Patents and patent rights in such fields have been acquired from others in great numbers by obtaining the unrestricted assignment of patents by obtaining licenses which give extensive rights thereunder, including the rights to sublicense others and to sue for infringement thereof, and by various other means and devices which in fact and in practice place RCA in effective control and domination over such acquired patents and patent rights in the radio, phonograph and allied fields. In pursuit of said policy, RCA, alone and with the aid and assistance of the other defendants has in some cases taken advantage of its size and power resulting from the aforesaid plan and conspiracy and of the limited market for patents resulting therefrom to force sellers to take less than a fair value and, in other cases, in aid of its

plan and conspiracy has resorted to excessive payments for patents and patent rights of doubtful validity and intrinsic worth. Said policy was adopted to build up, and in pursuance thereof RCA, alone and in combination with the other defendants, has built up and gathered unto itself, an overwhelming aggregate of patents and patent rights, which, in combination with the patents resulting from its own endeavors, has enabled it, and now enables it, to monopolize patents and patent licensing in the radio, phonograph and allied fields, and to threaten, intimidate, coerce, control or eliminate competitors and potential competitors therein with the mass of its patents and patent rights. In building up and extending said concentration of patents for the purpose of coercion and intimidation of competitors in said fields, it was and has continued to be and is now the policy and practice of RCA and said other companies to file patent applications on all developments in the radio, phonograph or allied fields, even though such developments did not and do not constitute advances in the art sufficient to constitute patentable invention, and to assert in said applications claims in the broadest possible language, even though such claims were beyond the scope of the actual invention if any, to secure the allowance of such claims by exhaustive and repeated argument in response to rejection by the United States Patent Office, and repeated interviews with the Examiners thereof, to the end that said RCA, alone and with the aid and assistance of said other companies, would continue to have under its control a large mass and group of patents on all possible embodiments, variations and alternatives of existing or prosepective radio devices, tubes and processes, in order to block the efforts of others to secure patents or develop non-infringing apparatus or methods, in order to fence in all possible operations in the radio, phonograph and allied fields and in order to enlarge and perpetuate the pool of patents and patent rights concen-

trated in and controlled by RCA, irrespective of whether they were to be put to use by defendants or any of them. By virtue of the aforesaid massing and pooling of patents and patent rights and the misuse thereof as set forth in this paragraph and in paragraph 12 hereof, among other things, RCA, individually and with the aid and assistance and concerted action of the other defendants, and said other defendants, alone and in concert with one another and with RCA, did dominate and monopolize the radio, phonograph and allied fields, did monopolize patents therein and patent licensing therein, did determine and control the conditions under which competition would be permitted and did restrain trade and competition therein and continue so to do.

(d) In or about 1932, certain of the contracts, agreements and licenses between RCA, General Electric, Westinghouse, A. T. & T. and others aforesaid were revised, whereby among other things, there was restored to General Electric, Westinghouse and A. T. & T. the right to grant licenses under and sue under their own patents in the radio, phonograph and allied fields; but said revised contracts, licenses and agreements left RCA in existence in an illegally dominant, monopolistic position in said fields with its ownership of radio properties and with exclusive contract rights and pooled patents and patent rights and with the powerful economic, competitive weapon [illegible]ing the only entity in the United States with the aut[illegible] to grant licenses under, and sue under or cause su[illegible]e brought under, not only all of its own large number of patents and patent rights relating to said fields, including the manufacture, use and sale of apparatus for radio broadcast reception, but also the large number of then existing, as well as future, patents and patent rights of General Electric, A. T. & T., Western Electric, Bell Laboratories and Westinghouse relating to said field, which rights will continue for the full life of all patents acquired by any of said com-

panies prior to January 1, 1955, notwithstanding that said agreements will expire December 31, 1954.

The effect of such unlawful conspiracy and combination has continued and still does continue notwithstanding the revision of said contracts, agreement and licenses. RCA alone, and with the aid and assistance of the others aforesaid, and said others acting in concert with RCA and with one another, have continued to carry out and are attempting to carry out the original intent and purpose of said unlawful conspiracy and combination. Said properties and pooled patent rights concentrated and perpetuated in RCA and particularly the combined licensing power in the radio, phonograph and allied fields have continued to be used and are now being used by RCA, alone and with the aid and assistance and concerted action of said other companies, to monopolize not only manufactures in said fields, but also to monopolize patents and patent licensing in said fields and to restrain competition therein. To that end, General Electric, Westinghouse, A. T. & T., Western Electric and Bell Laboratories, although having the right to grant licenses to manufacturers of radio and phonograph apparatus, have adopted and practiced a policy of not granting such licenses or of granting them on terms so onerous individually or collectively that the prospective licensee has been and is forced to deal with RCA and accept a license under the mass of pooled patents. Further to that end, RCA, and the other companies aforesaid, throughout said period have brought numerous and widespread suits for injunction and trebled damages on many of said patents and have given great publicity thereto all with the object and result of intimidating all competitors and possible competitors, none of whom was able to bear the financial burden and expend the time and energy necessary to investigate all of the patents asserted and who were forced thereby to go out of, or stay out of, the radio business or, in such cases

and at such times as RCA was willing to grant licenses, to take licenses on arbitrary terms dictated by RCA including among others arbitrary royalty rates, restrictions as to place of manufacture, restrictions as to sale, restrictions as to use, restrictions as to duration of license, restrictions as to type of apparatus, as to completeness of apparatus and restrictions as to parts or components thereof.

(e) On or about November 21, 1932, the Government having brought an action against RCA, General Electric, Westinghouse, and A. T. & T., and certain subsidiaries of said companies, including Western Electric and others for violation of the anti-trust laws, a decree was entered in the United States District Court for the District of Delaware on consent, which, among other things, enjoined RCA from asserting exclusive rights in the radio field under patents owned or controlled by any of the other parties aforesaid, but, notwithstanding the provisions and intent of said decree, RCA alone and with the aid and assistance and concerted action of said other companies, has continued to assert and is effectively asserting exclusive patent rights in the radio, phonograph and allied fields derived from the other parties aforesaid under agreements and understandings with said parties and said other companies have acted, and are acting, in concert with RCA and one another to that end.

(f) It has been and is the policy and practice of RCA and said other companies to use the power of said mass of unidentified pooled patents and patent rights, now numbering in excess of 10,000, to blanket the entire industry and levy tribute at public expense on all of the enormous volume of broadcast radio receiving apparatus and vacuum tubes therefore purchased by the public, and to coerce manufacturers to take licenses and pay tribute irrespective of whether said patents were valid or invalid or whether they covered the apparatus on which tribute was levied.

At present, substantially all broadcast radio receiver manufacturers and vacuum tube manufacturers of the United States, approximately 150, have accepted licenses under said patents and now pay tribute on their entire production of radio apparatus and plaintiff believes that, at the present time, with the exception of itself, there are substantially no broadcast radio receiver manufacturers who have not been forced to acquiesce in and accept a license and pay tribute thereunder.

The burden thus imposed on the entire manufacture of radio receiving apparatus for broadcast reception by the use of said massed pool of patents as part of and in furtherance of said conspiracy to monopolize and to restrain trade has totalled in excess of Two Hundred Million Dollars ($200,000,000.00) and the price of radio apparatus to the public has been increased at least to this extent, and, moreover, the sale of radio apparatus has been restricted and restrained thereby. By means of this part of the conspiracy and combination to restrain and monopolize, RCA with the aid, assistance and concerted actions of the business of granting licenses in the radio field and dominated and monopolized the manufacture of broadcast radio receiving apparatus by compelling tribute from all manufacturers but has been enabled to further and carry out its plans to monopolize other parts of the radio industry and eliminate competition therein, for example in ship-to-shore communication, ship-to-ship transmission, commercial communication and other lines by reducing its prices and charges in such fields or operating in such fields without profit so that competitors or prospective competitors were discouraged or eliminated.

(g) In pursuance and effectuation of the aforesaid combination and conspiracy among said companies, it has been and is the policy and practice of RCA to package license the patents under its ownership of control, that

is to say, to grant licenses only under the entire mass of unidentified pooled patents and patent rights at a uniform royalty rate applying to all, and to refuse to grant licenses under any number of patents less than those comprising the entire pool at a royalty rate less than the royalties levied by the terms of licenses under the entire pool of patents. As a result, the licensees were and are forced to pay royalties on invalid patents and on patents having claims broader than justified and to pay tribute on their entire production of radio apparatus without justification.

(h) As part of and in furtherance of said plan and conspiracy, RCA, alone and with the aid and assistance of the other companies aforesaid, has made use of said pooled patents and patent rights to induce or force agreements with others for the sale of radio apparatus for use, consumption or resale within the United States or its territories or the District of Columbia or insular possessions or other places under the jurisdiction of the United States on the condition, agreement or understanding that the lessee or purchaser thereof should not use or deal in radio apparatus, merchandise, supplies or other commodities of a competitor of RCA with the intention or effect of substantially lessening competition or tending to create a monopoly in the radio industry, and one instance thereof was held by the United States District Court for the District of Delaware (affirmed by the United States Circuit Court of Appeals for the Third Circuit) in the case of Lord et al. *v.* Radio Corporation of America, 24 F. 2d 565; (on appeal, 28 F. 2d 257) to be illegal and in violation of Section 3 of the Clayton Act (15 U. S. C. 14).

(i) RCA and the other companies aforesaid, by the foregoing and other acts, have deliberately, wilfully and wrongfully conspired to substantially lessen competition in, and establish a monopoly of, and to dominate the radio,

phonograph and allied industries, of patents therein and of patent licensing therein. As part of and in furtherance of the pattern, purpose and plan to dominate, RCA and its co-conspirators, the companies aforesaid, have used and have permitted the use of, such pooled patents and patent rights, concentrated and perpetuated in RCA in the manner more specifically set forth in paragraph 12 hereof.

12. Further answering defendants' counterclaims, plaintiff alleges, on information and belief, that the patents asserted in said counterclaims, among others, are unenforceable because RCA, both alone and with the aid and assistance of the other defendants, and said other defendants, alone and in concert with RCA and with one another, have improperly acquired and improperly used and are now improperly using their patents and patent rights including the patents asserted in said counterclaims in that, among other things and in addition to the improper and illegal use of said patents alleged in paragraph 11 hereof RCA and said other defendants:

(a) have effected a pooling of more than 10,000 patents, of which the patents asserted in defendants' counterclaims are a part. Said patent pool comprises a substantial portion of all of the patents in the radio, phonograph and allied industries. It includes those patents originating in a substantial number of the principal and larger companies in said fields, and patents for alternative and normally competing processes, radio and phonograph systems and parts therefor. In furtherance of the purposes of said patent pool there is vested in RCA the power to grant licenses under and to sue for alleged infringement of all of the patents of the pool whether owned by RCA or others. RCA, alone and with the aid and assistance and concerted action of the other companies as aforesaid, has used and is using the said massed patents and patent

rights and its said power to extend its monopoly beyond any proper separate monopolies of the several patents and to intimidate and coerce manufacturers and users of radio, phonograph and allied apparatus into accepting blanket licenses under said massed patents on excessive and unconscionable terms at public expense without investigation of the validity or proper scope thereof by the licensee. The aforesaid policies and practices have the purpose and result of forcing payment of royalties on all radio, phonograph and allied apparatus whether patented or unpatented and of restraining trade and competition in the radio, phonograph and allied industries.

(b) have unlawfully extended and attempted to extend any proper patent monopoly by procuring and enforcing plural patents for the same invention granted at different times so as to expire at different times, without disclaimer of any thereof; and have continued to exact tribute under the unexpired patents after the expiration of earlier issued patents for the same invention.

(c) have required and are requiring licensees to mark apparatus, made and sold under license, with the statement that it uses inventions covered by licensed patents whether this be true or false, and to mark such apparatus with the numbers of patents the inventions of which formed the subject matter of expired or invalid patents, some of which had previously been asserted by RCA or another of the aforesaid companies, and with the numbers of patents which did not apply to said apparatus. Defendants have themselves similarly marked apparatus sold by them. Defendants have indulged in these practices and prescribed these requirements in an attempt to extend, and with the effect of extending, their monopoly beyond the individual proper monopolies of the several patents; to mislead the public and RCA's licensees and competing manufacturers and the trade generally as to the scope of the patents and

patent rights concentrated in RCA and as to the type of apparatus covered by said patents and patent rights; to thus cause otherwise unlicensed manufacturers to acquire licenses and to cause licensees to pay royalties on apparatus not in fact covered by defendants' patents. By resort to these practices and requirements, defendants have created the impression on the part of all manufacturers and the purchasing public that RCA had and has a complete patent monopoly of all radio apparatus. As a result, others were and are discouraged and prevented from competing with RCA, and RCA was and is enabled to collect royalties on apparatus not validly covered by any patents or patent rights owned by it,

(d) have unnecessarily and without justification, conducted or permitted to be conducted, and are now attempting to conduct, interference proceedings between applicants for patent and patents owned by others of the aforesaid companies but all of which are included in the pool of patents and patent rights under the control and management of RCA in the radio, phonograph and allied fields. RCA and said other defendants have engaged in these practices as part of a plan to extend, and with the effect of extending, the monopoly based on pooled patents by unduly postponing the time when by expiration of the patents the subject matter thereof might be available for free adoption and use by anyone,

(e) have exacted royalty payments on parts and equipment for which no patent rights were owned or controlled by RCA,

(f) by refusing to grant licenses for the manufacture and sale of radio apparatus under any one or more of the patents under their control to anyone who refused to take a license under all of said patents, and by refusing to charge a lower royalty for a license under one patent or a portion of said patents than for a license under all, have

compelled and are continuing to compel manufacturers who desire a license under one or less than all said patents to take licenses under the entire block of pooled patents and pay royalties thereon. They have thereby precluded licensees from questioning the validity or scope of unexpired but invalid or limited patents and improperly forced the payment of royalties on said invalid and limited patents. Further, they have thereby discouraged and prevented the attack that otherwise would be made by the public against invalid and limited patents, have extended their monopoly and particularly RCA's monopoly in the radio, phonograph and allied fields beyond any proper separate monopolies of the several patents, and have levied and caused to be levied, tribute at public expense on the entire production of the licensees without justification,

(g) have placed, and are continuing to place, and have required, and are continuing to require, licensees to place, on tubes and other radio apparatus sold in the ordinary channels of trade, and on containers therefor restrictive notices as to uses thereof which are purported to be permitted or purported to be prohibited to the purchasers thereof although said notices in law are and were legally unenforceable and ineffective, all with the intention and result of restraining freedom of trade and extending the monopoly of the illegally pooled patents above referred to,

(h) have refused and are continuing to refuse to sell tubes except on the understanding and condition that they may be used and retained by the purchaser only subject to the condition that the sale thereof to the purchaser by RCA or the other defendants or their licensees does not entitle the purchaser to use them in any complete equipment, assembly, circuit, combination, method or process covered by any patent owned or controlled by RCA or the other defendants or under which RCA had the right to

sue, whether valid or invalid. This has been and is the case even though there is no other use for said tubes and notwithstanding the fact that such tubes may have been designed for use in or may only be useful in such patented equipment, assembly, circuit, combination, method or process and notwithstanding that such tubes were purchased and sold for such use. Thereby they have forced, or attempted to force, the purchaser to take a license and pay tribute for the use of patents and patent rights pooled and concentrated in RCA, including invalid patents and patents not covering tubes, in order to make any use of said purchased tubes,

(i) have used, and permitted the use of, the power of said massed patents and patent rights to compel manufacturers to release all claims against RCA including all antitrust claims and all unfair competition claims in order to secure a license under any of said patents to manufacture radio or phonograph apparatus,

(j) have utilized and are utilizing said massed patents and patent rights for the purpose of creating and maintaining complete or partial monopolies in commodities such as tubes, parts and apparatus not validly covered or not purported to be covered by said patents and patent rights or any of them, and to compel the payment of unwarranted royalties thereon at the cost of the purchasing public,

(k) have, in addition to exacting royalty payments, at public expense, for apparatus, equipment, shipping materials, etc., which the patents did not cover, exacted, and permitted exaction of double royalties at public expense, namely, royalties from apparatus manufacturers for circuits designed for use only with particular types of radio tubes and incorporating such tubes as an essential part thereof and also royalties from the manufacturers of said radio tubes designed specifically for use with and as an essential part of said circuits,

(l) and, RCA alone and with the aid and assistance of the other defendants, after and while inducing and coercing those engaged or desiring to engage in the manufacture and sale of radio and phonograph apparatus to acquire a license from RCA under said massed patents and patent rights and to pay royalties thereunder on their entire production constituting a substantial portion of the price of such apparatus and to make available to RCA in the form of royalty reports and from examination of their books and records detailed information of the competitive operations of such licenses with respect to their entire production which information would not otherwise be available, has itself engaged in the manufacture and sale of radio and phonograph apparatus in competition with its said licensees with the intent and effect of placing RCA in the position where it could and did undersell its competitor licensees without loss to itself and of making the competitive operations of certain of said competitor licensees unprofitable or of such little profit as to discourage continued competition by said licensees,

(m) have misused the patent privilege by attempting to derive profit, not from legitimate use and exploitation of their inventions but by monopolizing and restraining trade in the manufacture, use and sale of apparatus used or useful in the radio and phonograph fields, and to that end RCA has, individually and in concert with the other defendants, combined the limited privileges granted by individual patents to form a massed pool of patents in which each derives a portion of its strength from its combination with others and whereby the massed pool of patents form an instrument for economic dominance and control greater than the sum of the separate monopolies intended by the policy of the patent statutes.

Whereby the defendants by virtue of their unlawful monopolies, acts, practices, policies and conduct aforesaid are abusing the privileges of the patent system and of the

patents owned and controlled by them. They are seeking to assert rights in this Court in order to obtain judicial aid in, and condonement of, their unlawful domination and monopolistic control of the industry in the radio, phonograph and allied fields, and of the acts and practices aforesaid committed in the accomplishment and exercise thereof, all in violation of the true purpose and spirit of the patent laws and the public policy of the United States, whereby they are barred from the enforcement of said patents asserted in their counterclaims or any of their patents and patent rights and from any relief whatsoever.

13. Further answering defendants' counterclaims, plaintiff on information and belief alleges as to each of the Letters Patent on which said counterclaims are based that it is wholly void and invalid and of no force and effect for the following reasons, among others:

(a) because the alleged invention thereof was patented or described in patents and printed publications in this country or in foreign countries before the alleged invention or discovery thereof by the patentee or more than two years prior to the application for said patent in the case of applications filed on or prior to August 5, 1940, and more than one year prior to the application for said patent in the case of applications filed subsequent to August 5, 1940. The prior patents and publications pertinent to each of the counterclaim patents, as plaintiff is now advised, are listed in Schedule A annexed hereto. Plaintiff prays leave to add additional patents and publications when they become known to it.

(b) because said Letters Patent discloses no patentable invention over what was known to the art at the time the alleged invention or discovery thereof was purported to have been made. As illustrating the knowledge of the art pertinent to each counterclaim patent as plaintiff is now advised attention is directed to Schedule A annexed hereto and as it may be amended,

(c) because the patentee was not the first and original inventor of the subject matter purported to have been patented or any material or substantial part thereof, the alleged invention, if patentable at all, having been made, prior to the patentee by the authors and patentees listed in Schedule A hereof and by others who were using reasonable diligence in adapting and perfecting the same and whose name plaintiff asks leave to add thereto by amendment when they become known to it,

(d) that the purported invention thereof had been in public use or on sale in this country for more than two years prior to the application for said patent in the case of applications filed on or prior to August 5, 1940, and more than one year prior to the application for said patent in the case of applications filed subsequent to August 5, 1940 by persons whose names and addresses plaintiff prays leave to add to this reply as Schedule B when they become known to it,

(e) because for the purpose of deceiving the public the description and specification filed by the patentee in the Patent Office was made to contain less than the whole truth relative to the purported invention or discovery or more than is necessary to produce the desired effect,

(f) because the subject matter thereof was abandoned to the public because of unreasonable delay in making and asserting claims therefor,

(g) because the claims thereof were not presented until an unreasonable time after or more than the statutory period after, the subject thereof had been in public use in the United States or described in patents and printed publications. The particulars whereof plaintiff prays leave to add to this reply as Schedule C when they become known to it,

(h) because the patentee has unreasonably neglected or delayed to enter a disclaimer of material and substantial

part or parts of the thing patented of which he was not the original and first inventor or discoverer,

(i) because the purported invention thereof is inoperative and is devoid of utility,

(j) because the application therefor and oath in support thereof was not made by the true inventor or inventors of the inventions purported to be disclosed therein. The particulars whereof plaintiff prays leave to add to this reply as Schedule D when they become known to it,

(k) because the purported invention thereof was patented in a foreign country on an application filed more than twelve months prior to the filing of the application for said Letters Patent in the United States. The particulars whereof plaintiff prays leave to add to this reply as Schedule E when they become known to it,

(l) because said Letters Patent is for the same alleged invention as another patent or patents owned by defendants or one of them and constitutes double patenting and an illegal extension of the monopoly thereof, the particulars whereof plaintiff prays leave to add to this reply as Schedule F when they become known to it,

(m) because said Letters Patent includes claims which are obviously invalid on the face of the patent because they are functional and such claims have not been disclaimed,

(n) because of vagueness and indefiniteness of disclosure and claims, and non-compliance with Section 4888 of the Revised Statute (35 U. S. C. 33),

(o) because the claims of the patent claim more than what is purported to have been invented,

(p) because the claims of the patent purport to monopolize an exhausted combination of elements, the only alleged novelty of which resides in the particular construction or characteristics of one of the elements,

(q) because the claims of the patent purport to monopolize a mere aggregation of unrelated elements,

(r) because the alleged invention described and claimed

in said patent was not disclosed in the original application therefor but on the contrary was new matter illegally added subsequent to the filing of the original application,

(s) because the application and the claims of the patent as granted were not supported by the necessary statutory oath of the inventor.

14. Further answering the counterclaims, plaintiff on information and belief alleges with respect to each of the patents on which the counterclaims are based that because of the proceedings had or taken in the Patent Office during the prosecution of the application therefor or because the claims thereof were by amendment limited in scope in order to secure their allowance, defendants are estopped to assert an interpretation thereof which would enable such claims to include plaintiff's accused apparatus.

15. Further answering the counterclaims, plaintiff on information and belief alleges that reissue patents Nos. 20,114 and 20,338 are wholly void and invalid for each of the following reasons:

(a) because the oath supporting the application for reissue sets forth no facts from which the Commissioner of Patents could determine whether or not inadvertence, accident or mistake had occurred in the procurement of the original patent justifying the reissuance thereof,

(b) because the oath supporting the application for reissue on its face reveals that no inadvertence, accident or mistake occurred in the procurement of the original patent justifying the reissuance thereof, and the file history of the original patent shows that no inadvertence, accident or mistake occurred,

(c) because the reissue patent is for an invention different from that of the original patent of which it purports to be a reissue.

16. Further answering the counterclaims, plaintiff specifically denies infringement of each of the patents asserted in said counterclaims.

Wherefore, Plaintiff Prays:

(A) For a judgment that none of the defendants is entitled to the relief prayed for, or to any relief, and that said counterclaims be dismissed.

(B) For a judgment that the patents asserted by counterclaim, among others, are invalid and not infringed.

(C) For a judgment that defendants are seeking to enforce rights with respect to the patents and patent rights asserted which are contrary to the intent of the patent laws and the public policy of the United States and may not be awarded any relief thereon.

(D) For a judgment that defendants, and each of them, have misused the asserted patents and patent rights and that they may not be enforced for this reason.

(E) For a judgment that defendants, and each of them, have acquired and used the asserted patents and patent rights in violation of the anti-trust laws and that they may not be enforced for that reason.

(F) For the costs of the action.

(G) For reasonable attorneys' fees.

(H) For such other and further relief as to the Court may seem just and the circumstances warrant.

Zenith Radio Corporation,
By Arthur G. Connolly,
Its Attorney,
228 Delaware Trust Building,
Wilmington 28, Delaware.

Irving Herriott,
Burton K. Wheeler,
Pennie, Edmonds, Morton and Barrows,
Willis H. Taylor, Jr.,
R. Morton Adams,
Darby and Darby,
Floyd H. Crews,
Paul Kolisch,
Of Counsel.
November, 1949.

Agreement Schedule.

1. Agreement between General Electric and Marconi Wireless Telegraph Company of America dated October 22, 1919.

2. Agreement between RCA and Marconi Wireless Telegraph Company of America dated November 20, 1919.

3. Agreement between General Electric and RCA dated November 20, 1919.

4. Agreement between Marconi Wireless Telegraph Company of America and Compagnie Generale de Telegraphie sans Fils of France dated September 2, 1919.

5. Assignment of said contract of September 2, 1919 to RCA dated December 12, 1919.

6. Agreement between RCA and Marconi Wireless Company, Ltd. of England, General Electric assenting, dated November 21, 1919.

7. Amendment of the agreement of November 21, 1919 dated October 14, 1921.

8. Agreement between Marconi Wireless Telegraph Company of America and RCA dated March 27, 1920.

9. Agreement between General Electric and A. T. & T. dated July 1, 1920.

10. Agreement between General Electric, A. T. & T., RCA and Western Electric dated July 1, 1920.

11. Agreement between General Electric, A. T. & T., RCA and Western Electric dated July 1, 1920.

12. Letter agreement between A. T. & T. and General Electric dated July 1, 1920.

13. Agreement between RCA and A. T. & T. dated September 9, 1920.

14. Agreement between General Electric and United Fruit Company dated February 19, 1921.

15. Agreement between RCA and United Fruit Company dated March 7, 1921.

16. Agreement between RCA, General Electric and Wireless Specialty Apparatus Company dated March 7, 1921.

17. Letter agreement between A. T. & T. and General Electric dated March 9, 1921.

18. Agreement between Westinghouse and International Radio Telegraph Company dated May 22, 1920.

19. Agreement between Westinghouse and International Radio Telegraph Company dated June 21, 1920.

20. Agreement between Westinghouse and International Radio Telegraph Company dated June 29, 1921.

21. Agreement between RCA and International Radio Telegraph Company dated June 30, 1921.

22. Agreement between General Electric and Westinghouse dated June 30, 1921.

23. Agreement between RCA, General Electric and Westinghouse dated June 30, 1921.

24. Agreement between RCA, General Electric and Westinghouse dated June 30, 1921.

25. Agreement between Westinghouse, A. T. & T. and Western Electric dated June 30, 1921.

26. Letter agreement between A. T. & T., Western Electric, RCA and General Electric dated June 30, 1921.

27. Agreement between RCA, General Electric and Westinghouse dated June 30, 1921, known as "Armstrong and Pupin" agreement.

28. Agreement between RCA, Compagnie Generale de Telegraphie sans Fils, Telefunken and Marconi Wireless Telegraph Co., Ltd. dated October 14, 1921.

29. Agreement between RCA, Compagnie Generale de Telegraphie sans Fils and Radio France dated October 26, 1921.

30. Agreement between Westinghouse, General Electric and RCA dated June 29, 1923.

31. Agreement between RCA and Telefunken Company

(Gesellschaft Fur Drahtlose Telegraphie, G.m.b.H.) dated October 22, 1921.

32. Agreement between Westinghouse and International Radio Telegraph Company dated June 30, 1922.

33. Letter agreements between International General Electric Company, Westinghouse Electric International Corporation, N. V. Philips and N. V. Philips Radio dated July 22, 1925, August 27, 1925, October 1, 1925, April 19, 1926 and June 11, 1926.

34. Letter agreements between RCA, International General Electric, General Electric, Westinghouse Electric International Company and Westinghouse dated August 6, 1925, August 27, 1925 and September 3, 1925.

35. Agreement between General Electric and A. T. & T. dated July 1, 1926.

36. Agreements between RCA, General Electric, Westinghouse, A. T. & T., Western Electric and International Radio Telegraph Company dated July 1, 1926 modifying the agreements of said parties dated June 30, 1921.

37. Agreement between General Electric, RCA and Westinghouse dated June 11, 1929.

38. Agreement between General Electric, Westinghouse and RCA dated January 1, 1930.

39. Agreement between International General Electric, Westinghouse Electric International Company, N. V. Philips Gloeilampenfabrieken and N. V. Philips Radio dated March 19, 1931.

40. Nine substitute agreements between General Electric, A. T. & T., RCA, Westinghouse and Western Electric dated July 1, 1932.

41. Agreement between RCA, General Electric and Westinghouse dated November 21, 1932.

42. Agreement between RCA, General Electric and Westinghouse dated November 21, 1932.

43. Five agreements between RCA, General Electric,

Westinghouse and their subsidiaries dated November 21, 1932.

44. Memo agreement on foreign situation between RCA, General Electric and Westinghouse dated November 21, 1932.

45. Waiver letter of May 24, 1934 sent by RCA, International General Electric Company and Westinghouse Electric International Company to the Philips Company.

46. Agreement between RCA, International General Electric, Westinghouse Electric International Company and the Philips Company dated June 8, 1934.

47. Agreement between RCA, A. T. & T. and Western Electric dated December 26, 1935.

48. Agreement between RCA, International General Electric, Westinghouse Electric International Company and the Philips Company dated May 11, 1937.

49. Agreement between General Electric, RCA and Westinghouse dated July 1, 1939.

50. Agreement between International General Electric, RCA, Westinghouse and Westinghouse International dated July 1, 1939.

PLAINTIFF'S EXHIBIT NO. 37.

UNITED STATES DISTRICT COURT
For the District of Delaware.

Zenith Radio Corporation, *Plaintiff,* *vs.* Radio Corporation of America, et al., *Defendants.*	Civil Action No. 1247 (Consolidated)

STIPULATION.

It Is Hereby Stipulated, Consented and Agreed by and between the plaintiff and the undersigned defendants, by their attorneys and counsel, that all claims asserted in this consolidated action by the plaintiff against each, any or all of the defendants be and they hereby are dismissed with prejudice, and that all claims asserted in this consolidated action by each or any of the defendants against the plaintiff be and they hereby are dismissed with prejudice, in each instance without costs, expenses or attorneys' fees.

Dated: September ....., 1957.

/s/ Thomas Cooch,
Attorney for Plaintiff Zenith Radio Corporation,

/s/ Caleb S. Layton (per RML),
Attorney for Defendant Radio Corporation of America,

/s/ J. J. Morris, Jr.,
Attorney for Defendant General Electric Company,

/s/ William Prickett,
Attorney for Defendant, Western Electric Company, Incorporated.

/s/ Willis H. Taylor, Jr.,
Counsel for Plaintiff Zenith Radio Corporation,

/s/ John W. Clielch,
Counsel for Defendant Radio Corporation of America,

/s/ Albert C. Bickford,
Counsel for Defendant General Electric Company,

/s/ John E. F. Wood,
Counsel for Defendant Western Electric Company, Incorporated.

The above stipulation is approved this 27th day of September, 1957, and it is So Ordered.

/s/ Paul Leahy,
Chief Judge.

PLAINTIFF'S EXHIBIT NO. 38.

IN THE UNITED STATES DISTRICT COURT,

Northern District of Illinois,

Eastern Division.

Radio Corporation of America, *Plaintiff,* *vs.* The Rauland Corporation and Zenith Radio Corporation, *Defendants.*	Civil Action No. 48 C 1818.

AMENDED COMPLAINT.

Plaintiff, a Delaware corporation, complaining of defendants, alleges:

I.

This is an action for infringement by defendants of Letters Patent of the United States owned by the plaintiff, and arises under the patent laws of the United States.

II.

Plaintiff is engaged in the manufacture and sale of radio and television equipment and apparatus, including cathode ray tubes patented in Letters Patent of the United States identified in the schedule annexed to this amended complaint, which patents are owned by the plaintiff and were regularly and duly issued by the United States Patent Office.

III.

Defendants, The Rauland Corporation and Zenith Radio Corporation both Illinois corporations, within the past six years have been and are now infringing the aforesaid

Letters Patent by making, selling and using cathode ray tubes embodying the aforesaid patented inventions, within the Northern District of Illinois, Western Division and elsewhere in the United States, and intend to continue so to do.

IV.

Plaintiff has given notice to the defendants of their said infringement in accordance with Sec. 4900 R. S. (USC Title 35, Sec. 49).

Wherefore, plaintiff demands an injunction against defendants, and those controlled by them, enjoining them from further infringement of said Letters Patent, and compensation for said infringement, and an assessment of costs against defendants, including reasonable attorneys' fees.

Radio Corporation of America,
By Kirkland, Fleming, Green,
Martin & Ellis,
Carl S. Lloyd,

A True Copy Teste
Elbert A. Wagner, Jr.,
Clerk.

July 22, 1949.

July 9, 1963.

Schedule.

Jan. 22, 1935	Zworykin, et al.	1,988,469
Feb. 4, 1936	Schlesinger	2,029,639
Dec. 1, 1936	Batchelor	2,062,854
May 18, 1937	Schrader	2,080,837
July 13, 1937	George	2,086,546
Feb. 28, 1939	Snow	2,148,588
July 15, 1941	Zworykin	2,249,552
Aug. 26, 1941	Tower	2,254,090
Sept. 22, 1942	Tower	2,296,307
Aug. 31, 1943	Painter	2,328,292

IN THE UNITED STATES DISTRICT COURT.

* * (Caption—48-C-1818) * *

COMPLAINT.

Plaintiff, a Delaware corporation, complaining of defendants, alleges:

I.

This is an action for infringement by defendants of Letters Patent of the United States owned by the plaintiff, and arises under the patent laws of the United States.

II.

Plaintiff is engaged in the manufacture and sale of radio and television equipment and apparatus, including cathode ray tubes patented in Letters Patent of the United States identified in the schedule annexed to this Complaint, which patents are owned by the plaintiff and were regularly and duly issued by the United States Patent Office.

III.

Defendants, The Rauland Corporation and Zenith Radio Corporation both Illinois corporations, within the past six years have been and are now infringing the aforesaid Letters Patent by making, selling and using cathode ray tubes embodying the aforesaid patented inventions, within the Northern District of Illinois, Western Division and elsewhere in the United States, and intend to continue so to do.

IV.

Plaintiff has given notice to the defendants of their said infringement in accordance with Sec. 4900 R. S. (USC Title 35, Sec. 49).

Wherefore, plaintiff demands an injunction against defendants, and those controlled by them, enjoining them from further infringement of said Letters Patent, and compensation for said infringement, and an assessment of costs against defendants, including reasonable attorneys' fees.

Radio Corporation of America,
By Kirkland, Fleming, Green,
Martin & Ellis,
Carl S. Lloyd,
A True Copy Teste
Elbert A. Wagner, Jr.,
Clerk.

December 7, 1948.

July 9, 1963.

Schedule.

Jan. 22, 1935	Zworykin, et al.	1,988,469
Feb. 4, 1936	Schlesinger	2,029,639
Dec. 1, 1936	Batchelor	2,062,858
May 18, 1937	Schrader	2,080,837
July 13, 1937	George	2,086,546
Feb. 28, 1939	Snow	2,148,588
June 29, 1943	McLaughlin	2,323,148
Aug. 31, 1943	Painter	2,328,292

PLAINTIFF'S EXHIBIT NO. 39.

UNITED STATES DISTRICT COURT.
(Caption—48-C-1818)

ANSWER AND COUNTERCLAIM.

Defendants, The Rauland Corporation (hereinafter called "Rauland") and Zenith Radio Corporation (hereinafter called "Zenith"), answering the amended complaint of plaintiff, Radio Corporation of America (hereinafter called "RCA"):

1. Admit that the action was brought under the patent laws of the United States, but deny that they are guilty of the acts of infringement complained of, or of any infringement of plaintiff's patents.

2. Admit that the plaintiff is engaged in the manufacture and sale of radio and television equipment and apparatus, including cathode-ray tubes, and admit that RCA is the record owner of the title to the patents listed in the schedule annexed to the complaint, but deny each and every other allegation of paragraph II of the complaint.

3. Admit that they are both Illinois corporations, but deny each and every other allegation of paragraph III of the complaint.

4. Deny each and every allegation of paragraph IV.

5. Defendants, further answering, allege on information and belief that the patents asserted by plaintiff RCA, are part of a pool of patents and patent rights which were acquired by plaintiff and have been and are being asserted against defendants and others who manufacture and sell radio apparatus by RCA both alone and with the aid and assistance of the other companies hereinafter named and by said other companies alone and in concert with RCA, as part of a plan and conspiracy to dominate and monopo-

lize the entire electronics field including the radio, phonograph and allied fields, to divide said fields among themselves and dominate and control the operation of others in said fields and to monopolize patnets in said fields, to monopolize patent licensing in said fields and to restrain trade and competition therein in violation of the anti-trust laws and that said patents are, therefore, unenforceable. The other companies herein referred to are General Electric Company, a corporation organized and existing under the laws of the State of New York (hereinafter referred to as "General Electric"), American Telephone and Telegraph Company, a corporation organized under the laws of the State of New York (hereinafter referred to as "A. T. & T."), Western Electric Company, Incorporated, a corporation organized under the laws of the State of New York (hereinafter referred to as "Western Electric"), Bell Telephone Laboratories, Incorporated, a corporation organized under the laws of the State of New York (hereinafter referred to as "Bell Laboratories") and Westinghouse Electric Corporation, previously known as Westinghouse Electric & Manufacturing Corporation, a corporation organized and existing under the laws of the State of Pennsylvania (hereinafter referred to as "Westinghouse"). In support thereof, defendants, on information and belief, allege:

(a) Said electronics field includes not only the radio field but also fields such as communication over wires, public address systems, talking moving pictures, facsimile reproductions, X-ray apparatus, medical devices, power control and conversion systems and also other fields in which vacuum tubes and other radio instrumentalities are used. Said radio field includes, among other things, ship-to-ship radio, ship-to-short radio, radio telegraph communication, transoceanic radio telegraph communication, radio broadcast transmission and reception, including television,

commercial radio communication, and the manufacture, use and sale of transmitting and receiving apparatus therefor, including parts such as radio vacuum tubes. Said phonograph field includes, among other things, mechanically operated phonographs, electrically operated phonographs and radio phonograph combinations, including parts therefor such as records, vacuum tubes and the like.

(b) Said plan and conspiracy embrace not only the United States but also countries foreign thereto and embrace world dominations divided among the aforesaid companies and foreign companies who were and are actual or potential competitors. Among the foreign companies involved by direct agreements or mesne agreements were or are: Marconi's Wireless Telegraph Co. (Ltd.), known as the British Marconi Company; the Gesellschaft Fuer Drahtlose Telegraphie, n. b. H. of Germany, known as the Telefunken Company; Compagnie Generale de Telegraphie sans Fils, a French company; N. V. Philips Gloeilamphenfabrieken, known as Philips Company of Holland; International General Electric Company, Australian General Electric Company, China General Edison Company, Inc., Compania General Electric do Brazil, South African General Electric Company, Ltd., Cia. General Electric Sudamericana, Inc., and Mexican General Electric Company; international companies affiliated with American Telephone & Telegraph Compay and, international companies affiliated with Westinghouse Electric & Manufacturing Company.

It was, and with unimportant modifications still is, part of said plan and conspiracy to secure and perpetuate said domination, monopoly and division of fields among the several parties by exclusive agreements under the guise of patent licenses under masses of undisclosed and unknown present and future patents, by agreements to cooperate in the enforcement of patents in aid of the exclusive commer-

cial fields, and by agreements to cooperate in procurement of additional patents, to systematically funnel them from all sources in the country and abroad into the control of the conspiring companies aforesaid and to concentrate in the hands of each of said companies the power to sue, to threaten or to restrictively license under the entire pool of massed patents in its particular agreed field. Said plan and conspiracy were initiated, implemented and effectuated by means of the agreements, among others, identified in the schedule hereto annexed entitled "Agreement Schedule".

(c) Said plan and conspiracy began in or about 1919 and has continued and is still continuing without change in purpose or effect. In 1919, the defendant RCA was caused to be organized by defendant General Electric, the largest company in the United States in the electrical field, and one of the largest in the world. RCA was caused to acquire, pursuant to arrangements made by General Electric, the entire assets and patents rights of Marconi Wireless Telegraph Company of America, Inc., the wholly-owned subsidiary of the British Marconi Company which was one of the then two dominant companies in world-wide radio communication. The United States properties and patents of the other of the two dominant companies, the Telefunken Company of Germany, had been seized by the Alien Property Custodian and acquired by the Navy Department and thus removed from the competitive field. Thereafter and beginning in 1919, General Electric, Westinghouse Electric Company, one of the largest electrical manufacturing companies in the United States (then Westinghouse Electric and Manufacturing Company ,and hereinafter referred to as "Westinghouse") and American Telephone and Telegraph Company (hereinafter referred to as "A. T. & T.") a dominant company in telephone communications, acquired ownership and control of RCA, and RCA both alone and with the aid and assistance of the other defendants, and

the other defendants alone and in concert with one another and with RCA, entered upon the aforesaid plan and conspiracy to monopolize and dominate the entire radio, phonograph and allied fields, to divide said fields among themselves, to dominate and control the operations of others in said fields, to monopolize patents in said fields, to monopolize patent licensing in said fields and to restrain trade and eliminate competition therein. To that end, they entered into agreements and patent licenses dividing the several fields and parts thereof among themselves and eliminated from competition, by purchase and otherwise, companies which did, or might, compete; among others, the International Radio Telegraph Company, the Wireless Specialty Apparatus Company, the United Fruit Company and the Federal Telegraph Company of California. Further, they entered into agreements and patent cross licenses concentrating in RCA exclusive rights in the radio field under all patents and patent rights of General Electric, Westinghouse and A. T. & T. (except for limited rights reserved or conveyed to General Electric, Westinghouse and A. T. & T. and its subsidiaries Western Electric Company, Incorporated and Bell Telephone Laboratories, among others) or flowing to said companies from other sources. Further, to the same end, RCA, and the aforementioned companies, alone and in concert, adopted a policy of acquiring or controlling, and did acquire and control large numbers of patents and patent rights including patents on alternatives and substitutes even though not valid or not necessary to operations of RCA or of said other companies or not intended for use or used by RCA or said other companies, providing only that they purported to cover alternatives or substitutes or that the language of the claims of said patents was broad enough apparently to dominate some existing or future process or apparatus or part thereof in the radio, phonograph or allied fields. In furtherance thereof said companies agreed

interchange patent and other information on a confidential basis, to cooperate in patent office prosecutions, to share cost of patents and to aid each other in enforcing patents in their respective fields. Agreements among themselves and with other companies in this and foreign countries were established which systematically funneled into the control of RCA, masses of patents originating with said companies and other leading companies throughout the world for many years in the future. Patents and patent rights in such fields have been acquired from others in great numbers by obtaining the unrestricted assignment of patents by obtaining licenses which give extensive rights thereunder, including the rights to sublicense others and to sue for infringement thereof, and by various other means and devices which in fact and in practice place RCA in effective control and domination over such acquired patents and patent rights in the radio, phonograph and allied fields. In pursuit of said policy RCA, alone and with the aid and assistance of said other companies, has in some cases taken advantage of its size and power resulting from the aforesaid plan and conspiracy and of the limited market for patents resulting therefrom to force sellers to take less than a fair value, and, in other cases, in aid of its plan and conspiracy has resorted to excessive payments for patents and patent rights of doubtful validity and intrinsic worth. Said policy was adopted to build up, and in pursuance therefore RCA, alone and in combination with said other companies, has built up and gathered unto itself, an overwhelming aggregate of patents and patent rights, which, in combination with the patents resulting from its own endeavors, has enabled it, and now enables it, to monopolize patents and patent licensing in the radio, phonograph and allied fields, and to threaten, intimidate, coerce, control or eliminate competitors and potential competitors therein with the mass of its patent and patent rights. In building

up and extending said concentration of patents for the purpose of coercion and intimidation of competitors in said fields, it was and has continued to be and is now the policy and practice of RCA and said other companies to file patent applications on all developments, either in the radio, phonograph or allied fields, even though such developments did not and do not constitute advances in the art sufficient to constitute patenable invention, and to assert in said applications claims in the broadest possible language, even though such claims were beyond the scope of the actual invention if any, to secure the allowance of such claims by exhaustive and repeated argument in response to rejection by the United States Patent Office, and repeated interviews with the Examiners thereof, to the end that said RCA, alone and with the aid and assistance of said other companies, would continue to have under its control a large mass and group of patents on all possible embodiments, variations and alternatives of existing or prospective radio devices, tubes and processes, in order to block the efforts of others to secure patents or develop non-infringing apparatus or methods, in order to fence in all possible operations in the radio, phonograph and allied fields and in order to enlarge and perpetuate the pool of patents and patent rights concentrated in and controlled by RCA, irrespective of whether they were to be put to use by RCA or any of said other companies. By virtue of the aforesaid massing and pooling of patents and patent rights and the misuse thereof as set forth in this paragraph and in paragraph 6 hereof, among other things, RCA, individually and with the aid and assistance and concerted action of said other companies, and said other companies alone and in concert with one another and with RCA, did dominate and monopolize the radio, phonograph and allied fields, did monopolize patents therein, and patent licensing therein, did determine and control the conditions under which competition would be permitted

and did restrain trade and competition therein and continue so to do.

(d) In or about 1932, certain of the contracts, agreements and licenses between RCA, General Electric, Westinghouse, A.T.&T. and others aforesaid were revised, whereby, among other things, there was restored to General Electric, Westinghouse and A.T.&T. the right to grant licenses under and sue under their own patents in the radio, phonograph and allied fields; but said revised contracts, licenses and agreements left RCA in existence in an illegally dominant, monopolistic position in said fields with its ownership of radio properties and with exclusive contract rights and pooled patents and patent rights and with the powerful economic, competitive weapon of being the only entity in the United States with the authority to grant licenses under, and sue under or cause suit to be brought under, not only all of its own large number of patents and patent rights relating to the said fields, including the manufacture, use and sale of apparatus for radio broadcast reception, but also the large number of then eixsting, as well as future, patents and patent rights of General Electric, A.T.&T., Western Electric, Bell Laboratories and Westinghouse relating to said fields, which rights will continue for the full life of all patents acquired by any of said companies prior to January 1, 1955, notwithstanding that said agreements will expire December 31, 1954.

The effect of such unlawful conspiracy and combination has continued and still does continue notwithstanding the revision of said contracts, agreements and licenses. RCA, alone and with the aid and assistance of the others aforesaid, and said others acting in concert with RCA and with one another, have continued to carry out and are attempting to carry out the original intent and purpose of said unlawful conspiracy and combination. Said properties and pooled patent rights concentrated and perpetuated in

RCA and particularly the combined licensing power in the radio and phonograph and allied fields have continued to be used and are now being used by RCA, alone and with the aid and assistance and concerted action of said other companies, to monopolize not only manufacture in said fields, but also to monopolize patents and patent licensing in said fields and to restrain competition therein. To that end, General Electric, Westinghouse, A. T. & T., Western Electric and Bell Laboratories although having the right to grant licenses to manufacturers of radio and phonograph apparatus, have adopted and practiced a policy of not granting such licenses or of granting them on terms so onerous individually or collectively that the prospective licensee has been and is forced to deal with RCA and accept a license under the mass of pooled patents. Further to that end, RCA, and the other companies aforesaid, throughout said period have brought numerous and widespread suits for injunction and trebled damages on many of said patents and have given great publicity thereto all with the object and result of intimidating all competitors and possible competitors, none of whom was able to bear the financial burden and expend the time and energy necessary to investigate all of the patents asserted and who were forced thereby to go out of, or stay out of, the radio business or, in such cases and at such times as RCA was willing to grant licenses, to take licenses on arbitrary terms dictated by RCA including, among others, arbitrary royalty rates, restrictions as to place of manufacture, restrictions as to sale, restrictions as to use, restrictions as to duration of license, restrictions as to type of apparatus, as to completeness of apparatus and restrictions as to parts or components thereof.

(e) On or about November 21, 1932, the Government having brought an action against RCA, General Electric, Westinghouse and A. T. & T., and certain subsidiaries of

said companies, including Western Electric and others for violation of the anti-trust laws, a decree was entered in the United States District Court for the District of Delaware on consent, which, among other things, enjoined RCA from asserting exclusive rights in the radio field under patents owned or controlled by any of the other parties aforesaid, but, notwithstanding the provisions and intent of said decree, RCA, alone and with the aid and assistance and concerted action of said other companies, has continued to assert and is effectively asserting exclusive patent rights in the radio, phonograph and allied fields derived from the other parties aforesaid under agreements and understandings with said parties and said other companies have acted, and are acting, in concert with RCA and one another to that end.

(f) It has been and is the policy and practice of RCA and said other companies to use the power of said mass of unidentified pooled patents and patent rights, now numbering in excess of 10,000, to blanket the entire industry and levy tribute at public expense on all of the enormous volume of broadcast radio receiving apparatus and vacuum tubes therefore purchased by the public, and to coerce manufacturers to take licenses and pay tribute irrespective of whether said patents were valid or invalid or whether they covered the apparatus on which tribute was levied. At present, substantially all broadcast radio receiver manufacturers and tube manufacturers of the United States, approximately 150, have accepted licenses under said patents and now pay tribute on their entire production of radio apparatus and defendants believe that at the present time, with the exception of themsleves, there are substantially no manufacturers of radio broadcast receivers or tubes therefor who have not been forced to acquiesce in and accept a license and pay tribute thereunder.

The burden thus imposed on the entire manufacture of

radio receiving apparatus for broadcast reception by the use of said massed pool of patents as part of and in furtherance of said conspiracy to monopolize and to restrain trade has totalled in excess of Two Hundred Million Dollars ($200,000,000.00) and the price of radio apparatus to the public has been increased at least to this extent, and, moreover the sale of radio apparatus has been restricted and restrained thereby. By means of this part of the conspiracy and combination to restrain and monopolize, RCA with the aid, assistance and concerted actions of the other companies has not only monopolized patents and the business of granting licenses in the radio field and dominated and monopolized the manufacture of broadcast radio receiving apparatus by compelling tribute from all manufacturers, but has been enabled to further and carry out its plans to monopolize other parts of the raido industry and eliminate competition therein, for example in ship-to-shore communication, ship-to-ship transmission, commercial communication and other lines by reducing its prices and charges in such fields or operating in such fields without profit so that competitors or prospective competitors were discouraged or eliminated.

(g) In pursuance and effectuation of the aforesaid combination and conspiracy among said companies, it has been and is the policy and practice of RCA to package-license the patents under its ownership or control, that is to say, to grant licenses only under the entire mass of unidentified pooled patents and patent rights at a uniform royalty rate applying to all, and to refuse to grant licenses under any number of patents less than those comprising the entire pool at a royalty rate less than the royalties levied by the terms of licenses under the entire pool of patents. As a result, the licensees were and are forced to pay royalties on invalid patents and on patents having claims broader than justified and to pay tribute on their entire production of radio apparatus without justification.

(h) As part of and in furtherance of said plan and conspiracy, RCA, alone and with the aid and assistance of the other companies aforesaid, has made use of said pooled patents and patent rights to induce or force agreements with others for the sale of radio apparatus for use, consumption or resale within the United States or its territories or the District of Columbia or insular possessions or other places under the jurisdiction of the United States on the condition, agreement or understanding that the lessee or purchaser theerof should not use or deal in radio apparatus, merchandise, supplies or other commodities of a competitor of RCA with the intention or effect of substantially lessening competition or tending to create a monopoly in the radio industry, and one instance thereof was held by the United States District Court for the District of Delaware (affirmed by the United States Circuit Court of Appeals for the Third Circuit) in the case of Lord et al. v. Radio Corporation of America, 24 F. 2d 565; (on appeal, 28 F. 2d 257) to be illegal and in violation of Section 3 of the Clayton Act (15 U. S. C. 14).

(i) RCA and the other companies aforesaid, by the foregoing and other acts, have deliberately, wilfully and wrongfuly conspired to substantially lessen competition in, and establish a monopoly of, and to dominate the radio, phonograph and allied industries, of patents therein and of patent licensing therein. As part of and in furtherance of the pattern, purpose and plan to dominate, RCA and its co-conspirators, the companies aforesaid, have used and have permitted the use of, such pooled patents and patent rights concentrated and perpetuated in RCA in the manner more specifically set forth in paragraph 6 hereof.

6. Further answering, the defedants allege, on information and belief, that the patents asserted in the complaint and amended complaint, among others, are unenforceable because RCA, both alone and with the aid and assistance

of said other companies, and said other companies, alone and in concert with RCA and with one another, have improperly acquired and improperly used and are now improperly using their patents and patent rights, including the patents asserted in the complaint and amended complaint, in that, among other things, and in addition to the improper and illegal use of said patents alleged in paragraph 5 hereof RCA and said other companies:

(a) have effected a pooling of more than ten thousand (10,000) patents, of which the patents asserted in the complaint are a part. Said patent pool comprises a substantial portion of all of the patents in the radio, phonograph and allied industries. It includes those patents originating in a substantial number of the principal and larger companies in said fields, and patents for alternative and normally competing processes, radio and phonograph systems and parts therefor, including tubes. In furtherance of the purposes of said patent pool there is vested in RCA the power to grant licenses under and to sue for alleged infringement of all of the patents of the pool whether owned by RCA or others. RCA, alone and with the aid and assistance and concerted action of the other companies as aforesaid, has used and is using the said massed patents and patent rights and its said power to extend its monopoly beyond any proper separate monopolies of the several patents and to intimidate and coerce manufacturers and users of radio, phonograph and allied apparatus into accepting blanket licenses under said massed patents on excessive and unconscionable terms of public expense without investigation of the validity or proper scope thereof by the licensee. The aforesaid policies and practices have the purpose and result of forcing payment of royalties on all radio, phonograph and allied apparatus whether patented or unpatented and of restraining trade and competition in the radio, phonograph and allied industries,

(b) have unlawfully extended and attempted to extend any proper patent monopoly by procuring and enforcing plural patents for the same invention granted at different times so as to expire at different times, without disclaimer of any thereof; and have continued to exact tribute under the unexpired patents after the expiration of the earlier issued patents for the same invention,

(c) have required and are requiring licensees to mark apparatus, made and sold under license, with the statement that it uses inventions covered by licensed patents whether this be true or false, and to mark such apparatus with the numbers of patents the inventions of which formed the subject matter of expired or invalid patents, some of which had previously been asserted by RCA or another of the aforesaid companies, and with the numbers of patents which did not apply to said apparatus. RCA and said other companies have themselves similarly marked apparatus sold by them. RCA and said other companies indulged in these practices and prescribed these requirements in an attempt to extend, and with the effect of extending, their monopoly beyond the individual proper monopolies of the several patents; to mislead the public and RCA's licensees and competing manufacturers and the trade generally as to the scope of the patents and patent rights concentrated in RCA and as to the type of apparatus covered by said patents and patent rights; to thus cause otherwise unlicensed manufacturers to acquire licenses and to cause licensees to pay royalties on apparatus not in fact covered by plaintiff's patents. By resort to these practices and requirements, plaintiff and said other companies have created the impression on the part of all manfacturers and the purchasing public that RCA had and has a complete patent monopoly of all radio apparatus. As a result, others were and are discovered and prevented from competing with RCA, and RCA was and is enabled to collect royalties

on apparatus not validly covered by any patents or patent rights owned by it,

(d) have, unnecessarily and without justification, conducted or permitted to be conducted, and are now attempting to conduct, interference proceedings between applicants for patent and patents owned by others of the aforesaid companies, but all of which are included in the pool of patents and patent rights under the control and management of RCA in the radio, phonograph and allied fields. RCA and said other companies have engaged in these practices as part of a plan to extend, and with the effect of extending, the monopoly based on pooled patents by unduly postponing the time when by expiration of the patents the subject matter thereof might be available for free adoption and use by anyone,

(e) have exacted royalty payments on parts and equipment for which no patent rights were owned or controlled by RCA,

(f) by refusing to grant licenses for the manufacture and sale of radio apparatus under any one or more of the patents under their control to anyone who refused to take a license under all of said patents, and by refusing to charge a lower royalty for a license under one patent or a portion of said patents than for a license under all, have compelled and are continuing to compel manufacturers who desire a license under one or less than all said patents to take licenses under the entire block of pooled patents and pay royalties thereon. They have thereby precluded licensees from questioning the validity or scope of unexpired but invalid or limited patents and improperly forced the payment of royalties on said invalid and limited patents. Further, they have thereby discouraged and prevented the attack that otherwise would be made by the public against invalid and limited patents, have extended their monopoly and particularly RCA's monopoly in the radio, phonograph

and allied fields beyond any proper separate monopolies of the several patents, and have levied and caused to be levied, tribute at public expense on the entire production of the licensees without justification,

(g) have placed, and are continuing to place, and have required, and are continuing to require, licensees to place tubes and other radio apparatus sold in the ordinary channels of trade, and on containers therefor, restrictive notices as to uses thereof which are purported to be permitted or purported to be prohibited to the purchasers thereof although said notices in law are and were legally unenforceable and ineffective, all with the intention and result of restraining freedom of trade and extending the monopoly of the illegally pooled patents above referred to,

(h) have refused, and are continuing to refuse, to sell tubes except on the understanding and condition that they may be used and retained by the purchaser only subject to the condition that the sale thereof to the purchaser by RCA or the other companies or their licensees does not entitle the purchaser to use them in any complete equipment, assembly circuit, combination, method or process covered by any patent owned or controlled by RCA or the other companies or under which RCA had the right to sue, whether valid or invalid. This has been and is the case even though there is no other use for said tubes, and notwithstanding the fact that such tubes may have been designed for use in or may only be useful in such patented equipment, assembly, circuit, combination, method or process and notwithstanding that such tubes were purchased and sold for such use. Thereby they have forced, or attempted to force, the purchaser to take a license and pay tribute for the use of patents and patent rights pooled and concentrated in RCA, including invalid patents and patents not covering tubes, in order to make any use of said purchased tubes,

(i) have used, and permitted the use of, the power of said massed patents and patent rights to compel manufacturers to release all claims against RCA, including all anti-trust claims and all unfair competition claims in order to secure a license under any of said patents to manufacture radio or phonograph apparatus,

(j) have utilized, and are utilizing, said massed patents and patent rights for the purpose of creating and maintaining complete or partial monopolies in commodities, such as tubes, parts and apparatus not validly covered or not purported to be covered by said patents and patent rights or any of them, and to compel the payment of unwarranted royalties thereon at the cost of the purchasing public,

(k) have, in addition to exacting royalty payments, at public expense, for apparatus, equipment, shipping materials, etc., which the patents did not cover, exacted and permitted exaction of double royalties at public expense, namely, royalties from apparatus manufacturers for circuits designed for use only with particular types of radio tubes and incorporating such tubes as an essential part thereof and also royalties from the manufacturers of said radio tubes designed specifically for use with and as an essential part of said circuit,

(l) and, RCA, alone and with the aid and assistance of said other companies, after and while inducing and coercing those engaged or desiring to engage in the manufacture and sale of radio and phonograph apparatus to acquire a license from RCA under said massed patents and patent rights and to pay royalties thereunder on their entire production constituting a substantial portion of the price of such apparatus and to make available to RCA in the form of royalty reports and from examination of their books and records detailed information of the competitive operations of such licensees with respect to their entire

production which information would not otherwise be available, has itself engaged in the manufacture and sale of radio and phonograph apparatus in competition with its said licensees with the intent and effect of placing RCA in the position where it could and did undersell its competitor licensees without loss to itself and of making the competitive operations of certain of said competitor-licensees unprofitable or of such little profit as to discourage continued competition by said licensees,

(m) have misused the patent privilege by attempting to derive profit, not from legitimate use and exploitation of their inventions but by monopolizing and restraining trade in the manufacture, use and sale of apparatus used or useful in the radio and phonograph field, and to that end RCA has, individually and in concert with said other companies, combined the limited privileges granted by individual patents to form a massed pool of patents in which each derives a portion of its strength from its combination with others and whereby the massed pool of patents form an instrument for economic dominance and control greater than the sum of the separate monopolies intended by the policy of the patent statutes.

Whereby RCA and said other companies by virtue of their unlawful monopolies, acts, practices, policies and conduct aforesaid are abusing the privileges of the patent system and of the patents owned and controlled by them. RCA is seeking to assert rights in this Court in order to obtain judicial aid in, and condonement of, unlawful domination and monopolistic control of the industry in the radio, phonograph and allied fields, and of the acts and practices aforesaid committed in the accomplishment and exercise thereof, all in violation of the true purpose and spirit of the patent laws and the public policy of the United States, whereby plaintiff, RCA, and said other companies are barred from the enforcement of said patents asserted in

the complaint and amended complaint or any of their patents and patent rights and from any relief whatsoever.

7. Further answering plaintiff's amended complaint, defendants, on information and belief, allege as to each of the Letters Patent listed in the schedule attached to the amended complaint that it is wholly void and invalid and of no force and effect for the following reasons, among others:

(a) because the alleged invention thereof was patented or described in patents and printed publications in this country or in foreign countries before the alleged invention or discovery thereof by the patentee or more than two years prior to the application for said patent in the case of applications filed on or prior to August 5, 1940 and more than one year prior to the application for said patent in the case of applications filed subsequent to August 5, 1940. The prior patents and publications pertinent to each of the patents, as defendants are now advised, are listed in Schedule A annexed hereto. Defendants pray leave to add additional patents and publications when they become known to them,

(b) because said Letters Patent discloses no patentable invention over what was known to the art at the time the alleged invention or discovery thereof was purported to have been made. As illustrating the knowledge of the art pertinent to each patent as defendants are now advised, attention is directed to Schedule A annexed hereto and as it may be amended,

(c) because the patentee was not the first and original inventor of the subject matter purported to have been patented or any material or substantial part thereof, the alleged invention, if patentable at all, having been made, prior to the patentee by the authors and patentees listed in Schedule A hereof and by others who were using reasonable diligence in adapting and perfecting the same and

whose names defendants ask leave to add hereby by amendment when they become known to them,

(d) that the purported invention thereof had been in public use or on sale in this country for more than two years prior to the application for said patent in the case of applications filed on or prior to August 5, 1940 and more than one year prior to the application for said patent in the case of applications filed subsequent to August 5, 1940 by persons whose names and addresses defendants pray leave to add to this answer as Schedule B when they become known to them.

(e) because for the purpose of deceiving the public the description and specification filed by the patentee in the Patent Office was made to contain less than the whole truth relative to the purported invention or discovery or more than is necessary to produce the desired effect,

(f) because the subject matter thereof was abandoned to the public because of unreasonable delay in making and asserting claims therefor.

(g) because the claims thereof were not presented until an unreasonable time, or more than the statutory period after the subject thereof had been in public use in the United States or described in patents and printed publications, the particulars whereof defendants pray leave to add to this answer as Schedule C when they become known to them,

(h) because the patentee has unreasonably neglected or delayed to enter a disclaimer of material and substantial part or parts of the thing patented of which he was not the original and first inventor or discoverer,

(i) because the purported invention thereof is inoperative and is devoid of utility,

(j) because the application therefor and oath in support thereof was not made by the true inventor or inventors of the inventions purported to be disclosed therein the par-

ticulars whereof defendants pray leave to add to this answer as Schedule D when they become known to them,

(k) because the purported invention thereof was patented in a foreign country on an application filed more than twelve months prior to the filing of the application for said Letters Patent in the United States, the particulars whereof defendants pray leave to add to this answer as Schedule E when they become known to them.

(l) because said Letters Patent is for the same alleged invention as another patent or patents owned by plaintiff and constitutes an illegal extension of the monopoly thereof, the particulars whereof defendants pray leave to add to this answer as Schedule F when they become known to them,

(m) because said Letters Patent include claims which are obviously invalid on the face of the patent because they are functional and such claims have not been disclaimed,

(n) because of vagueness and indefiniteness of disclosure and claims, and non-compliance with Section 4888 of the Revised Statute (35 U. S. Code 33),

(o) because the claims of the patent claim more than what is purported to have been invented,

(p) because the claims of the patent purport to monopolize an exhausted combination of elements, the only alleged novelty of which resides in the particular construction or characteristics of one of the elements,

(q) because the claims of the patent purports to monopolize a mere aggregation of unrelated elements,

(r) because the alleged invention described and claimed in said patent was not disclosed in the original application therefor, but on the contrary was new matter illegally added subsequent to the filing of the original application,

(s) because the application and the claims of the patent as granted were not supported by the necessary statutory oath of the inventor.

8. Further answering the amended complaint, defend-

ants, on information and belief, allege with respect to each of the patents listed in the schedule attached thereto that because of the proceedings had or taken in the Patent Office during the prosecution of the application therefor, or because the claims thereof were by amendment limited in scope in order to secure their allowance, the plaintiff is estopped to assert such a scope or interpretation for the claims of said patent as to include defendants' accused apparatus.

9. Further answering the amended complaint, defendants specifically deny infringement of each of the patents asserted in the schedule attached thereto.

Counterclaim.

Defendants, Rauland and Zenith, as a counterclaim against plaintiff, allege:

10. That this is a counterclaim under Title 28 United States Code Section 2201 for declaratory judgment of invalidity and non-infringement of patent rights.

11. Defendant, Rauland, is engaged in the manufacture and sale of cathode-ray tubes for television receivers, which cathode-ray tubes are being embodied and utilized in radio broadcast television receivers manufactured and sold by Zenith, Rauland being a wholly-owned subsidiary of Zenith.

12. Upon information and belief, plaintiff, RCA, is now the owner of the United States Letters Patent identified in the schedule of the amended complaint and of patent No. 2,323,148 listed in the schedule of the complaint, among others.

13. Plaintiff has asserted and charged that defendant aforesaid manufacture, use and sale of cathode-ray tubes constitutes infringement of United States Letters Patent, including those referred to in paragraph 12 hereof.

14. Defendants deny that their aforesaid, or any, manufacture, use and sale of cathode-ray tubes constitutes

infringement of any patents owned or controlled by RCA or under which RCA has the right to grant licenses or to sue alone or jointly with or in the name of the title holder.

15. Defendants allege that the patents referred to in paragraph 12 hereof are invalid, void and unenforceable for the reasons set forth in paragraphs 5, 6, 7 and 8 hereof.

16. By reason of the foregoing a controversy exists between plaintiff and defendants in that defendants claim the right to manufacture, use and sell cathode-ray tubes without interference from plaintiff by its' assertions and charges of infringement of the aforesaid or any other United States Letters Patent.

Wherefore, Defendants Pray:

A. For a judgment that the plaintiff is not entitled to the relief prayed for, or to any relief, and that the amended complaint be dismissed.

B. For a judgment that the patents listed in the schedule attached to the amended complaint are invalid and not infringed.

C. For a declaratory judgment of non-infringement of the patents identified in paragraph 12 hereof, and any and all other patents owned or controlled by RCA, or under which RCA has the right to grant licenses or to sue alone or jointly with or in the name of the title holder for alleged infringement thereof which RCA may assert to cover or be infringed by defendants' cathode-ray tubes.

D. For a declaratory judgment of invalidity and non-enforceability of each of RCA's patents as referred to in paragraph 12 hereof.

E. For a judgment that defendants are seeking to enforce rights with respect to the patents and patent rights asserted which are contrary to the intent of the patent laws and the public policy of the United States and may not be awarded any relief thereon.

F. For a judgment that defendants, and each of them have misused the asserted patents and patent rights and that they may not be enforced for this reason.

Q. For a judgment that defendants, and each of them have acquired and used the asserted patents and patent rights in violation of the anti-trust laws and that they may not be enforced for that reason.

H. For an injunction permanently restraining plaintiff, RCA, and its officers, agents, attorneys, workmen and employees, and all those in privity with it, from charging, orally or in writing, that said plaintiff owns or controls or is empowered to sue for alleged infringement of any issued patent allegedly covering or infringed by defendants' cathode-ray tubes, or any part or parts thereof, which defendants have made, used and/or sold or may hereafter make, use and/or sell; and from suing or threatening suit against any customer or user of defendants' said cathode-ray tubes, or any supplier or suppliers of parts therefor.

I. For the costs of this action.

J. For reasonable attorneys' fees.

K. For such other and further relief as to the Court may seem just and the circumstances warrant.

The Rauland Corporation and Zenith Radio Corporation,
By (Illegible),
Attorneys for Defendants,
Irving Herriott and Charles O. Parker,
120 South La Salle Street,
Chicago 3, Illinois.

Burton K. Wheeler,
Pennie, Edmonds, Morton and Barrows,
Willis H. Taylor, Jr.,
R. Morton Adams,
Darby and Darby,
Floyd H. Crews,
Paul Kolisch,
Of Counsel.

November 21, 1949.

Acknowledgement of Service.

We hereby acknowledge service of the above and foregoing Answer and Counterclaim of the defendants, The Rauland Corporation and Zenith Radio Corporation, a copy of which Answer and Counterclaim was left with us this 21st day of November, 1949.

Kirkland, Fleming, Green, Martin & Ellis,
By (Illegible),
Attorneys for Plaintiff.

A True Copy, Teste
Elbert A. Wagner, Jr.,
Clerk.

July 9, 1963.

PLAINTIFF'S EXHIBIT NO. 40.

IN THE DISTRICT COURT OF THE UNITED STATES.

* * (Caption—48-C-1818) * *

AMENDMENT TO COUNTERCLAIM.

Now come The Rauland Corporation and Zenith Radio Corporation, defendants herein, and by leave of Court first had and obtained present herewith an additional Count to their amended counterclaim, to be designated as Count II of the amended counterclaim heretofore filed herein, and name as cross-defendants Radio Corporation of America, a corporation, the plaintiff in this suit (hereinafter designated as "RCA"), General Electric Company, a corporation organized and existing under the laws of the State of New York (hereinafter referred to as "General Electric") and Western Electric Company, Inc., a corporation organized and existing under the laws of the State of New York (hereinafter referred to as "Western Electric"), and for cause of Count II of their counterclaim show:

1. That the jurisdiction of this Court to hear this counterclaim is based upon the original jurisdiction of the Court to hear "any civil action or proceeding arising under any Act of Congress regulating commerce or protecting trade and commerce against restraints and monopolies" and that, as hereinafter set forth, this controversy involves Sections 1, 2 and 7 of the Sherman Anti-Trust Act, 15 U. S. C. A., Sections 1, 2 and 15 (Act of July 2, 1890, Chap. 647, Sections 1, 2 and 7, 26 Stat. 209 and 210 as amended); Sections 1, 4, 5 and 12 of the Clayton Act, 15 U. S. C. A., Sections 12, 15, 16 and 22 (Act of October 15, 1914, Chap. 323, Sections 1, 4, 5 and 12, 38 Stat. 730, 731 and 736), and the Act of October 10, 1942, Chap. 589, 56 Stat. 781, as

amended by the Act of June 30, 1945, Chap. 213, 59 Stat. 306.

2. That cross-claimant Zenith Radio Corporation is a corporation organized and existing under the laws of the State of Illinois, and is now and has been continuously for more than twenty-five years last past engaged in the development for use and sale and in the manufacture, use and sale of radio and television apparatus and receiving sets throughout the United States, and during said period has built up a large volume of business in manufacturing and selling to dealers and to the public a complete line of different types of radio and television apparatus as the demand therefor has existed or may continue to exist from time to time, and in the shipment and sale of such apparatus in commerce between the various States of the United States, and said cross-claimant is now and has been engaged in interstate commerce during all of the period above stated and during all times material to this counterclaim.

3. That cross-claimant The Rauland Corporation is a corporation organized and existing under the laws of the State of Illinois and is now and has been continuously for more than ten years last past engaged in the development for use and sale of radio and television tubes and apparatus throughout the United States and foreign countries, and during said period has built up a large volume of business in manufacturing and selling to dealers and to the public such radio and television apparatus as the demand therefor has existed or may continue to exist from time to time, and in the shipment and sale of such apparatus in commerce between the various States of the United States and foreign countries, and said cross-claimant is now and has been engaged in interstate and foreign commerce during all of the period above stated and during all times material to this counterclaim.

4. That cross-defendants RCA, General Electric and

Western Electric are each corporations organized and existing under the laws of States other than the State of Illinois, and that the jurisdiction of this Court to hear this controversy is also based upon diversity of citizenship between cross-claimants and each of the cross-defendants, and that the amount in controversy herein exceeds $3,000.00 exclusive of interest and costs.

5. That cross-defendant RCA is party plaintiff in this suit and has already submitted itself to the jurisdiction of this Court, and cross-defendants General Electric and Western Electric are each found in and are doing business in the City of Chicago and State of Illinois and have each been qualified to do business in that State and have appointed resident agents in the City of Chicago upon whom service in their behalf may be made pursuant to the Statutes of the State of Illinois.

6. That each and all of the cross-defendants are now and at all times material to this counterclaim were engaged in interstate trade and commerce in the several States, and were engaged in commerce with foreign nations and were at the various times herein referred to and mentioned, and are now so engaged.

7. That cross-claimants herein reallege paragraphs 3 and 4 of their amended counterclaim and paragraphs 5 and 6 of their answer heretofore filed herein, and further say that cross-defendants and each of them, and their affiliated corporations together with sundry other persons and corporations, have been during the period complained of and pursuant to agreements, arrangements and understanding among themselves, engaged in a conspiracy (a) to monopolize and to attempt to monopolize the manufacture, sale and use of radio and television apparatus throughout the United States and foreign countries; (b) to restrain interstate trade and commerce in the manufacture, sale and use of radio and television apparatus

throughout the United States and foreign countries, and (c) to monopolize and to attempt to monopolize any and all patents in the electronics field and the licensing of the use of said patents in the manufacture, sale and use of radio and television apparatus throughout the United States and foreign countries, in the manner set forth in the succeeding paragraphs herein, all in violation of the provisions of the Federal Anti-Trust laws hereinabove referred to.

8. That cross-defendants themselves, or through predecessor corporations, together with sundry other persons and corporations, including amount others the British and American Marconi companies, the United Fruit Company and the Philips Company of Holland, sometime prior to the year 1920 entered into the conspiracy in violation of the Sherman and Clayton Acts hereinabove referred to, wherein and whereby the domestic and foreign patents of each and all of them in the electronics and allied fields were pooled and competition between each of them in certain designated fields was foreclosed and pursuant to which said conspiracy RCA and General Electric were granted exclusive fields of monopoly of the use and licensing of the pooled patents of (1) transoceanic wireless telegraphy, (2) transoceanic telephony, both wireless and wire, and (3) the manufacture, use and sale of wireless apparatus and devices, including such apparatus and devices for (a) wireless telegraphy, (b) wireless telephony for amateur purposes and (c) radio receiving sets for private use, and pursuant to which said conspiracy American Telephone & Telegraph Company, a corporation (hereinafter referred to as "AT&T"), Western Electric and their subsidiaries were granted exclusive fields of monopoly in (1) wire telegraphy other than transoceanic, (2) wire telephony on land, (3) wireless telephony on land and (4) the manufacture, use and sale of wire telephone and

telegraph apparatus and devices; that thereby cross-defendants and their co-conspirators, acting in concert, vested in RCA an illegal monopoly of patents and patent applications applicable to the radio manufacturing field, which said illegal pool of patents consisted of some ten thousand patents and applications applicable thereto.

9. That cross-defendants themselves, or through predecessor or subsidiary corporations, together with sundry other persons and corporations, including among others the British and American Marconi companies, the United Fruit Company and the Philips Company of Holland, sometime prior to the year 1926 entered into a conspiracy in violation of the Sherman and Clayton Acts hereinabove referred to, wherein and whereby the domestic and foreign patents of each and all of them in the electronics and allied fields were pooled and wherein and whereby the United States and foreign nations, for radio and television markets, were divided into mutually exclusive territories wherein and whereby the exclusive territories of cross-defendants were declared to be Canada (including Newfoundland) and the United States of America and its possessions, colonies, dependents and protectorates except Cuba and the Philippines; that the Philips Company of Holland is the holder of the largest patent pool applicable to electronics and the radio field on the continent of Europe, and operates a vast cartel system in which it monopolizes such business in many of the countries of Europe, and that the exclusive territory of the Philips Company, determined by the conspiracy herein alleged, included Holland, Czechoslovakia, Denmark, Esthonia, Finland, Latvia, Lithuania, Norway, Sweden and Switzerland, and that pursuant to said conspiracy it was agreed by and between said conspirators not to import or to permit to be imported into the exclusive territories of the others any radio valves, sets or other radio or television material manufactured or dealt in by

it or any of its subsidiaries or controlled companies, whether such valves, sets or other radio or television material be patented or not, without the mutual consent of said conspiring corporations; that by virtue of said conspiracy and resulting monopoly of patents in the electronics field, cross-claimants Zenith Radio Corporation and The Rauland Corporation were at all times material to this counter-claim excluded from any and all Canadian markets for radio and television sets or radio or television tubes or apparatus, and precluded from foreign competitive markets in which to obtain licenses under patents for the manufacture, sale or use of said radio and television apparatus.

10. That among the foreign companies participating in the aforesaid conspiracy are Marconi's Wireless Telegraph Co., Ltd. (known as the British Marconi Company); the Gesellschaft Fuer Drahtlose Telegraphie, m.b.h. of Germany (known as the Telefunken Company); Compagnie Generale de Telegraphie sans Fils, the French company; N. V. Philips Gloeilamphenfabrieken (also known as Philips Company of Holland); and International General Electric Company, a subsidiary of cross-defendant General Electric.

11. That the acts performed by cross-defendants and each of them pursuant to said unlawful monopoly and conspiracy were the direct and proximate cause of loss and damage to cross-claimant Zenith Radio Corporation in the operation of its business during the period complained of from June 22, 1940 down to the date of the filing of this Count of its amended counterclaim in an amount in excess of $4,452,183.00, said damages consisting of the following items: (a) loss of profits from the sale of radio and television sets in Canada during the period complained of in the amount of $1,976,898.00; (b) royalties paid to RCA by cross-claimants pursuant to illegal and unenforceable patent claims in the amount of $1,775,285.00, extorted under the threat of ruinous litigation under the massed aggregate of

thousands of alleged patent claims unlawfully pooled and asserted pursuant to the conspiracy herein alleged, and (c) attorneys' fees occasioned said cross-claimant by virtue of defending infringement suits brought on account of said illegal patent pool, which such fees amount to in excess of $700,000.00.

12. That cross-claimant Zenith Radio Corporation has thereby incurred total damages, being treble damages as provided by the Anti-Trust laws, in excess of $13,356,549.00.

13. That the acts performed by cross-defendants and each of them pursuant to said unlawful monopoly and conspiracy were the direct and proximate cause of loss and damage to cross-claimant The Rauland Corporation in the operation of its business during the period from July 1, 1943 down to the date of the filing of this Count of its amended counterclaim in an amount in excess of $900,000.00, said damages consisting of (a) loss of profits from the sale of radio and cathode ray tubes and radio and television apparatus in Canada during such period in an amount in excess of $700,000.00 and (b) attorneys' fee and costs and expenses occasioned said cross-claimant by virtue of defending infringement suits brought by RCA on account of said illegal patent pool, which said attorneys' fees and costs amount to in excess of $200,000.00.

14. That cross-claimant The Rauland Corporation has thereby incurred total damages, being treble damages as provided by the Anti-Trust laws, in excess of $2,700,000.00.

Wherefore, cross-claimants, Zenith Radio Corporation and The Rauland Corporation, ask that summons issue against all cross-defendants except RCA, requiring all and each of them to appear in answer to this amendment to cross-claimants' counterclaim within the time fixed by the rules of this Court, and that RCA be ordered and directed to answer this amended counterclaim within a short day to be fixed by further order of the Court, and that after

hearing on issues joined, a joint and several judgment be entered in favor of Zenith Radio Corporation against cross-defendants in the amount of $13,356,549.00 and that in addition there be allowed by the Court to said cross-claimant the costs of this suit, including a reasonable attorney's fee as provided in the statute, and that a joint and several judgment be entered in favor of The Rauland Corporation against cross-defendants in the amount of $2,700,000.00 and that in addition there be allowed by the Court to said cross-claimant the costs of this suit, including a reasonable attorney's fee as provided in the statute.

Zenith Radio Corporation,
A corporation, defendant and cross-claimant,
By Joseph B. Wright,
Its attorney.

The Rauland Corporation,
A corporation, defendant and cross-claimant,
By Joseph B. Wright,
Its attorney.

Counsel for defendants-cross-claimants:
Thomas C. McConnell,
134 S. LaSalle St., Chicago,

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Philip J. Curtis,
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R. Morton Adams,
247 Park Ave., New York ,N. Y.

A True Copy Teste
Elbert A. Wagner, Jr.,
July 9, 1963. *Clerk.*

PLAINTIFF'S EXHIBIT NO. 41.

UNITED STATES DISTRICT COURT.
* * (Caption—48-C-1818) * *

AMENDED COUNTERCLAIM AND AMENDED PRAYERS FOR RELIEF.

Amended Counterclaim.

Defendants, Rauland and Zenith, counterclaiming against the plaintiff RCA alleges:

1. This Counterclaim arises and is asserted under Section 16 of the Clayton Act (15 USC § 26) and prays for an injunction against threatened loss or damage to defendants by reason of violations of the antitrust laws by plaintiff, RCA. Said Section 16 of the Clayton Act provides in part as follows:

> Any * * * corporation shall be entitled to sue for and have injunctive relief, in any court of the United States having jurisdiction over the parties, against threatened loss or damage by a violation of the antitrust laws * * * when and under the same conditions and principles as injunctive relief against threatened conduct that will cause loss or damage is granted by courts of equity * * *.

Jurisdiction of this action is conferred on this court by Section 1337 of Title 28 of the United States Code.

2. Defendant Zenith is now, and continuously for more than twenty-five years last past has been, engaged, inter alia, in the business of manufacturing and selling radio apparatus, said radio apparatus including radio receiving sets, and in more recent years, television receiving sets. Defendant Rauland is a wholly owned subsidiary of Zenith, engaged in the manufacture of cathode ray tubes for use in television receiving sets made and sold by Zenith and others.

3. Plaintiff RCA, beginning in 1919, entered into a conspiracy in violation of the antitrust laws, with a number of companies, both domestic and foreign, who were, and continue today to be, holders of large pools or accumulations of patents and patent rights having application in the electronic industry and to the radio and television branch of that industry, said companies being identified in Paragraph 5 (pages 2, 3 and 4) of the Answer herein. Said conspiracy has existed continuously from its inception, and continues to exist today, in violation of the antitrust laws of the United States. The three primary objects and purposes of said conspiracy, all of which have directly and proximately caused, and are now causing, loss and damage to defendants, and have directly and proximately created the constant and continuing threat of loss and damage to defendants, were and are as follows:

First, to carve up the entire electronic industry into segments and subdivisions, or so-called "fields," as the parties to said conspiracy so designate them, said "fields" being divided up in accordance with the various types of products, services and/or activities embraced in the electronic industry. In order to create monopolies and to eliminate competition among themselves therein, said domestic conspirators who were and continue to be parties to said conspiracy allocated said "fields," respectively, to one another as their exclusive lines of business in which they have enjoyed, and presently continue to enjoy, monopolies in violation of the antitrust laws. Said divisions of "fields" were accomplished by a series of patent pooling agreements, whereunder said monopolies in lines of business were thus parcelled out within the electronic industry under the guise, and through the necessary operation, of purported patent cross-licensing agreements for the mutual exchange of patent rights under the various

accumulations of patents within the ownership and control of the parties thereto. Said licenses were denominated "exclusive" prior to 1932 but have been changed nominally to "non-exclusive" licenses from that time to the present. Said nominal change from "exclusive" to "non-exclusive" did not cure or otherwise affect the illegality of said patent pooling agreements. A monopoly of the "field" of radio (including television) together with a monopoly of patents and patent rights in said "field," and a monopoly of licensing the radio and television receiver manufacturing industry under all said patents and patent rights of all the companies parties to said conspiracy, was granted through such cross-licenses to RCA by its said co-conspirators. Said monopolization by RCA of said radio and television patents and patent rights, and of the licensing of said industry thereunder, continues today in violation of the antitrust laws under the currently effective patent pooling agreements. Further, said patent pooling agreements for divisions of "fields" have from the beginning of said conspiracy contained, and continue today to contain, illegal patent funneling provisions whereunder rights not only under existing patents of any of the parties thereto, but likewise under any future patents, issued to any of said conspiring companies while the agreements remain in effect, will continue automatically to funnel into the control of whichever party to the agreement has been granted an illegal monopoly of the particular line of business in which said funneled patent rights have application. By means of said funneling provisions, plaintiff RCA has, in the field of the manufacture and sale of radio and television receivers, heretofore acquired, and will continue hereafter to acquire, all rights, including rights to sublicense and sue the radio and television receiver

manufacturing industry, under the patents of all the other parties to said presently effective patent pooling agreements during the full life of said agreements, and even beyond the expiration of said agreements for the full life of those patents under wihch said rights have thus been illegally funneled in violation of the antitrust laws.

Second, to carve up the market areas and commercial territories of the world for the manufacture and sale of radio apparatus and devices by a series of international cartel agreements to which plaintiff RCA is a party. The principal foreign parties to said international agreements are identified in Paragraph 5 (page 4) of the Answer herein. Said international cartel agreements are framed in the guise of international patent pooling and cross-licensing agreements. Said agreements grant RCA the right to sublicense and sue manufacturers of radio apparatus in the United States under all American patents and patent rights of the foreign patent owners with whom such international market territories are thus divide,d and thereby RCA has further augmented its monopolistic control of radio patents and patent rights for illegal domination of the radio and television receiver manufacturing industry of the United States. Said international agreements, by thus creating cartel arrangements for territorial divisions of world markets, and adding to RCA's unlawful pool of patents and patent rights and its resultant power unlawfully to dominate the radio industry thereunder, have existed from the beginning of said conspiracy, and continue today to exist in violation of the antitrust laws. Further, all of said international patent pooling agreements contain provisions in violation of the antitrust laws, whereunder rights under all future American patent acqui-

sitions of the foreign parties thereto, applicable to radio, will continue to funnel into the control of RCA for the term of the agreements and in some instances, even beyond the term hereof. Further, by the provisions of said international agreements, RCA has given the foreign patent owners who are parties thereto the right, under all the patents which RCA has acquired in the foreign countries covered by those agreements, to sue any American manufacturers of radio apparatus, including the defendants herein, who should export radio apparatus into the territory of said foreigners, and in at least one instance, RCA has agreed to share with the foreigner the legal expenses of prosecuting such infringement suits. The operation of said provisions in said international agreements is such that these defendants would thus be barred by such infringement suits and threats thereof in foreign countries under RCA's said foreign patents, even if they accepted, as have all other manufacturers in the industry, an RCA so-called "Standard License" to manufacture and sell radio apparatus in the United States.

Third, to vest in RCA a monopoly of patents and patent rights and a monopoly of patent licensing in the radio "field," including the "field" of the manufacture and sale of radio and television receiving sets and parts and components thereof. As a result of said conspiracy, RCA has been and is invested with the power unlawfully to dominate the radio and television receiver manufacturing industry of the United States and to exclude from that industry any manufacturer, such as defendants Zenith and Rauland, who will not submit to RCA's domination by executing an RCA "Standard License," and pay RCA "royalties" for the immunity from litigation under the undifferentiated massed aggregate of unidentified patents and patent rights, now exceeding 10,000 in number, thus owned or

controlled by RCA pursuant to the aforesaid conspiracy. Said royalties are imposed in the way of a tax levied as a percentage of the licensed manufacturer's income, for the privilege of remaining in business. RCA asserts this power to exclude by suits and threats of suits under the entire mass of undisclosed patents and patent rights, which it has acquired either by the aforesaid patent pooling agreements for divisions of "fields" and division of territories (alleged, respectively, in Subparagraphs "First" and "Second," immediately preceding), or by purchases from others, or through the operation of its own research laboratories which it finances entirely, or in large measure, from the continuing tribute which it thus exacts from said industry.

4. Defendants Zenith and Rauland, as a direct and approximate result of the antitrust violations asserted hereinabove in Paragraph 3, are now suffering loss and damage and are faced with a constant and continuing threat of extinction unless they recognize and submit to the power of RCA to exclude them from the radio and television industry by accepting a license and paying tribute in the form of "royalties" as aforesaid. The present suit by RCA is being prosecuted in attempted vindication and exercise of its unlawful power to exclude from the radio and television receiver manufacturing industry any manufacturer who refuses to submit to its exaction of tribute. RCA asserts this power of exclusion by virtue of its unlawful monopoly of patents and patent rights applicable to said industry, and its monopoly of the licensing of the industry thereunder, which monopolies it has acquired largely by virtue of the agreements in violation of the antitrust laws for divisions of "fields" and for divisions of territories, as alleged hereinabove in Paragraph 3. RCA, prior to the bringing of the present action, sought to induce these defendants to take licenses and pay tribute under the afore-

said mass of pooled patents and patent rights for the privilege of manufacturing and selling radio and television apparatus and parts and components thereof, and RCA took the position that unless they accepted said licenses from RCA and paid RCA said tribute thereunder, RCA would assert the combined power of the said patents and patent rights by suing them for infringement of one or more of said mass of 10,000 undisclosed patents and patent rights. Not only has RCA brought this suit against Zenith and Rauland on the patents asserted in the instant case, but it has also, together with two of its co-conspirators General Electric Company and Western Electric Company, Inc., sued Zenith on 62 other patents in the District of Delaware. Both in the instant action and in the Delaware actions, patents have been added by amendment and have been withdrawn by amendment in order to harass and oppress defendants, and put them to additional expense in defending such patent suits. In addition to the loss and damage by way of harassment and the great expense incurred in defending these pending patent litigations, which defendants Zenith and Rauland are presently suffering and will continue to suffer unless they are granted the relief prayed for herein, Zenith and Rauland, likewise as a direct and proximate result of the conspiracy alleged hereinabove in Paragraph 3, will be under a constant and continuing threat of oppressive and ruinous litigation which, in the absence of such relief, RCA will be free to institute, and intends to institute for the indefinite future. Under the illegal patent funneling provisions set forth in the presently effective patent pooling agreements between RCA and its co-conspirators, charged hereinabove in Paragraph 3, defendants Zenith and Rauland are faced with such patent infringement suits not only on whatever presently existing patents in this pool RCA may choose as assert now or hereafter, but likewise with infringement suits under whatever future patents may be acquired during the ex-

istence of the aforesaid agreements by any and all of RCA's domestic and foreign co-conspirators, which by the terms of such patent funneling provisions will automatically funnel into the patent pool of RCA; and said constant and continuing threat of patent infringement suits against Zenith and Rauland by RCA will continue, by virtue of the terms of said patent pooling agreements between RCA and its said co-conspirators, even beyond the existence of said agreements and for the full lives of all such patents. Under said funneling provisions, RCA automatically has acquired and will continue to acquire the rights to sublicense and sue the radio and television receiver manufacturing industry of the United States under most of the patents applicable to the radio and television field, issued in the United States on inventions originating not only in the United States, but in the principal foreign countries of the world. Defendants Zenith and Rauland, as a direct and proximate result of the aforesaid antitrust violations by plaintiff RCA, are suffering loss and damage and are threatened with further loss and damage in that their distributors, dealers, agents and customers are likewise under the constant and continuing threat of oppressive and ruinous litigation for patent infringement on the part of RCA.

Wherefore, Defendants Pray:

A. For a judgment that the plaintiff is not entitled to the relief prayed for, or to any relief, and that the second amended and supplemental complaint be dismissed.

B. For a judgment that the patents listed in the schedule attached to the second amended and supplemental complaint are not infringed and/or are invalid.

C. For an injunction enjoining and restraining Radio Corporation of America:

1. From suing the defendants or either of them under any patent, or threatening suit thereunder against defendants or either of them, by reason of their manufacture,

use or sale of radio and television apparatus, and components and parts thereof;

2. From so suing or threatening suit against any customer or user of any of defendants' radio and television apparatus or components or parts thereof, or any of defendants' suppliers of parts therefor;

3. from exercising in any way their unlawful monopolistic power, created and maintained by means of combination and conspiracy violative of the antitrust laws, to injure the business of Zenith and Rauland or their customers.

D. For the costs of this action.

E. For reasonable attorneys' fees.

F. For such other and further relief as to the Court may seem just and the circumstances warrant.

The Rauland Corporation and Zenith Radio Corporation,
By Irving Herriott and
Charles O. Parker,
Attorneys for Defendants,

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Burton K. Wheeler,
Pennie, Edmonds, Morton, Barrows & Taylor
Willis H. Taylor, Jr.
R. Morton Adams

Joseph S. Wright
Francis W. Crotty
Philip J. Curtis
6001 W. Dickens
Chicago, Illinois
Of Counsel.

A True Copy Teste
Elbert A. Wagner, Jr.,
Clerk.

July 9, 1963.

PLAINTIFF'S EXHIBIT NO. 42.

IN THE DISTRICT COURT OF THE UNITED STATES.

For the Northern District of Illinois,

Eastern Division.

Radio Corporation of America, Plaintiff, *vs.* The Rauland Corporation and Zenith Radio Corporation, *Defendants.*	Civil Action No. 48 C 1818.
Zenith Radio Corporation and The Rauland Corporation, *Counterclaimants,* *vs.* Radio Corporation of America, *Counter-Defendants.* and General Electric Company and Western Electric Company, Inc., *Cross-Defendants.*	

AMENDMENT AND SUPPLEMENT TO COUNTERCLAIM.

Now come Zenith Radio Corporation and The Rauland Corporation, counterclaimants herein, and pursuant to leave of Court first had and obtained, present herewith an amendment and supplement to their counterclaim by striking from Count II of said counterclaim paragraphs 11 and 14, both inclusive, together with the prayer for relief, and substituting therefor the following:

11. That on January 14, 1949 the United States of America filed a complaint in the United States District

Court for the District of New Jersey against Western Electric Company, Inc., one of the cross-defendants herein, which said cause was docketed as Civil Action No. 17-49; that said suit was instituted under Sections 1, 2 and 3 of the Federal Anti-Trust Statute known as the Sherman Act and also under the Clayton Act, in and whereby it was charged that certain so-called "B-2" agreemnts dated July 1, 1932 made by the eWstern Electric Company with General Electric Company, Radio Corporation of America, and Westinghouse Electric Corporation, and all agreements supplementary thereto evidenced a conspiracy violative of the Federal Anti-Trust Laws in that they created a monopoly of patents in the electronics business and said suit suit sought a dedication to the public of all patents held pursuant to said agreements and a declaration by the Court that such agrements were illegal and that the patents licensed thereunder had been misused; that included in said pool of patents were the Western Electric patents alleged in the instant counterclaim to have been illegally polled, together with the patents of Radio Corporation of America, General Electric Company, and the other conspirators named in the counterclaim, to create a monopoly of patents in the electronics business and thereby to control the manufacture, sale and use of radio and television apparatus throughout the United States and foreign countries; that it was alleged in said complaint that Western Electric Company "had secured the exclusive right to furnish wire facilities ssential to radio program transmission service by agreeing with others not to engage in the manufacture and sale of radio equipment" and "by dividing fiels of manufacture, sale, and distribution of products covered by said patents with concerns engaged in other fields of telecommunication as well as in noncommunication fields"; that the Government complaint then alleged "by 1920, A. T. & T. and Western possessed pat-

ents and patent rights which were essential for the commercial use of radio. * * * Since the vacuum tube and other technology are to a large extent common to wire telephony and radio, A. T. & T. and Western were actual or potential competitors of General Electric Company, Radio Corporation of America, and Westinghouse Electric & Manufacturing Company, hereinafter collectively referred to as the 'Radio Group' which were engaged in the manufacture and sale of radio receiving and transmitting sets. A. T. & T. and Western entered into agreements with the Radio Group which had the effect of reserving to the Radio Group the manufacture and sale of radio receiving sets * * *."; that among the patents in the pool so created were and are certain Western Electric patents which have been asserted and are still being asserted against Zenith Radio Corporation in a cause pending in the United States District Court in Delaware, and that the issue of whether or not such pooling of patents was illegal under the Federal Anti-Trust Laws was and is directly involved in the above-mentioned and described case in the United States District Court in Delaware; that the Government suit referred to herein was terminated by a consent decree entered January 4, 1956, wherein and whereby the patents covered by the aforementioned cross-licensing agreement were ordered dedicated to the public; that under the provisions of the Clayton Act it is provided,

> "Whenever any suit or proceeding in equity or criminal prosecution is instituted by the United States to prevent, restrain, or punish violations of any of the anti-trust laws, the running of the statute of limitations in respect of each and every private right of action arising under said laws and based in whole or in part on any matter contained in said suit or proceeding shall be suspended during the pleading thereof."

That the effect of such telling of the statute of limitations is to permit the cross-claimants to maintain their counterclaim action against Western Electric for a period commencing January 14, 1947 down to the time of the filing of this counterclaim amendment.

13. That on January 27, 1941 the United States Department of Justice filed a complaint in behalf of the United States of America against General Electric Company et al., defendants, in the District Court of the United States for the District of New Jersey, docketed as Civil Action No. 1364; that in said complaint it was alleged that General Electric Company had violated the anti-trust laws of the United States in that they and others "have entered into and have maintained and are maintaining various patent pooling and licensing agreements" with companies engaged in the radio, telephoney, lighting and other related industries; that among such companies were Radio Corporation of America and Western Electric Company and among the isues to be tried in said cause was the alleged illegality under the Federal Anti-Trust Laws of the very same patent pooling agreements alleged and asserted as illegal in the instant counterclaim; that said litigation was finally determined by decretal order and judgment entered on October 8, 1953 from which the time for appealing expired November 8, 1953; that in said litigation it was determined that General Electric Company had violated the Anti-Trust Laws by maintaining a monopoly of patents and included in said monopoly are many of the same patents that have here been asserted against these counterclaimants and which are included in the pooling of patents complained of in the instant case; that by virtue of the tolling of the statute of limitations because of said Government suit these counterclaimants are entitled to maintain an action against General Electric Company as set forth in this counterclaim for damages under the Anti-Trust

Laws for a period extending at least as long as the claim asserted against Western Electric Company for the period beginning January 14, 1947 down to and including January 1, 1956.

13. That for the period commencing January 14, 1947 down to and including January 1, 1956 the acts performed by cross-defendants and each of them pursuant to said unlawful monopoly and conspiracy were the direct and proximate cause of loss and damage to cross-claimant Zenith Radio Corporation in the operation of its business in an amount in excess of $18,105,929.00, said damages consisting of the following items:

(a) Loss of profits from the sale of radio and television sets in Canada in the amount of $9,879,745.00;

(b) Loss of profits from the sale of radio sets in England, $1,466,029.00;

(c) Loss of profits from the sale of radio sets in Australia, $3,299,829.00;

(d) Loss of profits from the sale of radio sets in the Netherlands, $2,810,326;

(e) Attorneys' fees occasioned said cross-claimant by virtue of defending infringement suits brought on account of said illegal patent pool, which said fees are in excess of $750,000.00.

14. That cross-claimant Zenith Radio Corporation has thereby incurred total damages, being treble damages as provided by the anti-trust laws, in excess of $54,317,787.

15. That the acts performed by cross-defendants and each of them pursuant to said unlawful monopoly and conspiracy were the direct and proximate cause of loss and damage to cross-claimant The Rauland Corporation in the operation of its business during the period from January 14, 1947 down to the date of the filing of this amendment and supplement to the counter-claim in an amount in excess of $953,187.00 consisting of:

(a) Loss of profits from the sale of cathode ray tubes in Canada during such period in an amount in excess of $703,187.00; and

(b) Attorneys' fees and costs and expenses occasioned said cross-claimant by virtue of defending infringement suits brought by Radio Corporation of America for the account of said illegal patent pool which said attorneys fees and costs amount to in excess of $250,000.00

That cross-claimant The Rauland Corporation has thereby incurred total damages, being treble damages as provided by the Anti-Trust Laws, in excess of $2,859,561.00.

Wherefore, cross-claimants Zenith Radio Corporation and The Rauland Corporation ask that after hearing on issue joined a joint and several judgment be entered in favor of Zenith Radio Corporation against cross-defendants in the amount of $54,317,787.00 and that a joint and several judgment be entered in favor of The Rauland Corporation against cross-defendants in the amount of $2,859,561, and that in addition there be allowed by the Court to said cross-claimants the costs of this suit including a reasonable attorney's fee as provided in the Statute.

Zenith Radio Corporation, a corporation,
Defendant and Cross-Claimant,
Defendant and Cross-Claimant,
By Thomas C. McConnell,
Joseph S. Wright,
Its Attorneys.

The Rauland Corporation, a corporation,
Defendant and Cross-Claimant,
By Thomas C. McConnell,
Joseph S. Wright,
Its Attorneys.

III.

Now comes Zenith Radio Corporation, counterclaimant herein, and presents herewith an additional count to its counterclaim to be designated as Count III hereof wherein it complains of Radio Corporation of America and General Electric Company, counter-defendants, for the period beginning June 22, 1940 to January 1, 1947, and for cause of complaint says:

1. Realleges paragraphs 1, 2, 4, 5, 6, 7, 8, 9, and 10 of Count II of its amended counter claim and paragraphs 11 and 12 of the amendment to Count II of the counterclaim set forth above.

2. That the acts performed by cross-defendants and each of them pursuant to said unlawful monopoly and conspiracy were the direct and proximate cause of loss and damage to cross-complaint Zenith Radio Corporation from June 22, 1940 to January 1, 1947, such damages consisting of royalties paid to Radio Corporation of America by cross-claimant on acount of illegal and unenforceable patent claims in the amount of $1,524,319 extorted under the threat of ruinous litigation by the assertion of the massed aggregate of thousands of alleged patent claims unlawfully pooled and asserted pursuant to the conspiracy herein alleged.

3. That cross-claimant Zenith Radio Corporation has thereby incurred total damages, being treble damages as provided by the Anti-Trust Laws, in excess of $4,572,957.

Wherefore, cross-claimant Zenith Radio Corporation asks that a joint and several judgment be entered in favor of Zenith Radio Corporation against General Electric Company and Radio Corporation of America, cross-defendants, in the amount of $4,572,957.00, and that in addition there be allowed by the Court to said cross-claimant the costs of

this suit including a reasonable attorney's fee as provided in the Statute.

Zenith Radio Corporation, a corpration,
Defendant and Cross-Claimant,

By Thomas C. McConnell,
Joseph S. Wright,
Its Attorneys.

A True Copy Teste.

Elbert A. Wagner, Jr.,
Clerk.

By .....,
Deputy Clerk.

July 9, 1963.

PLAINTIFF'S EXHIBIT NO. 43.

IN THE DISTRICT COURT OF THE UNITED STATES.

* * (Caption—48-C-1818) * *

STIPULATION.

It Is Hereby Stipulated, Consented and Agreed by and between plaintiff, counter-defendant and cross-defendants, on the one hand, and by defendants, counter-claimants and cross-claimants, on the other hand, by their attorneys and counsel, that all claims asserted in this action by the plaintiff and counter-defendant against each or any of defendants, counter-claimants and cross-claimants be and they hereby are dismissed with prejudice, and that all claims asserted in this action by each or any of the defendants, counter-claimants and cross-claimants against each, any or all of plaintiff, counter-defendant and cross-defendants be and they hereby are dismissed with prejudice, in each instance without costs, expenses or attorneys' fes.

Dated this 27th day of September, 1957.

A. L. Hodson,
Attorney for Plaintiff and Counter-Defendant Radio Corporation of America.

Hamilton Beebe,
Attorney for Cross-Defendant General Electric Company.

Walter J. Cummings, Jr.,
Attorney for Cross-Defendant Western Electric Company, Inc.

Thomas C. McConnell,
Attorney for Defendant, Counter-Claimant and Cross-Claimant Zenith Radio Corporation.

Joseph S. Wright,
Attorney for Defendant, Counter-Claimant and Cross-Claimant The Rauland Corporation.

John T. Cahill,
Counsel for Plaintiff and Counter-Defendant Radio Corporation of America.

Richard R. Bickford,
Counsel for Cross-Defendant General Electric Company.

John E. F. Wood,
Counsel for Cross-Defendant Western Electric Company, Inc.

Thomas C. McConnell,
Counsel for Defendant, Counter-Claimant and Cross-Claimant Zenith Radio Corporation.

Joseph S. Wright,
Counsel for Defendant, Counter-Claimant and Cross-Claimant The Rauland Corporation.

So Ordered.

M. L. Igoe,
United States District Judge.

September 27, 1957.
A True Copy Teste.

Elbert A. Wagner, Jr.,
Clerk.

By Dorothy Aldridge,
Deputy Clerk.

Jan. 31, 1964.

PLAINTIFF'S EXHIBIT NO. 44.

United States of America,
Southern District of New York } ss:

I, James E. Valeche, Clerk of the United States District Court for the Southern District of New York, do hereby certify that the writings annexed to this certificate to wit: photostat copy of Complaint filed Nov. 24, 1958, in the matter of *U. S. A.* v. *General Electric Co., et al.,* Civ. 140-157 have been compared with their originals on file and remaining of record in this office; that they are correct transcripts therefrom and of the whole of the said originals.

In Testimony Whereof I have hereunto subscribed my name and affixed the seal of the said Court at the City of New York, in the Southern District of New York, this 4th day of March in the year of our Lord one thousand nine hundred and sixty-three and of the Independence of the United States the one hundred and eighty-seventh.

James E. Valeche,

Clerk.

UNITED STATES DISTRICT COURT.

Southern District of New York.

United States of America, *Plaintiff,* *vs.* General Electric Company, Westinghouse Electric Corporation, and N. V. Philips' Gloeilampenfabrieken, *Defendants.*	Civil No. 140-157.

COMPLAINT.

Filed: November 24, 1958.

The United States of America, by its attorneys, acting under the direction of the Attorney General of the United States, brings this action against the defendants named herein and complains and alleges as follows:

I.

Jurisdiction and Venue.

1. This complaint is filed and these proceedings are instituted under section 4 of the Act of Congress of July 2, 1890, c. 647, 26 Stat. 209 (15 U. S. C., Sec. 4), as amended, entitled "An Act to Protect Trade and Commerce Against Unlawful Restraints and Monopolies," said Act being commonly known as the Sherman Act, in order to prevent and restrain continuing violations by the defendants, as hereinafter alleged, of section 1 of the Sherman Act (15 U. S. C., Sec. 1).

2. Many of the acts done in pursuance of the offense charged herein have been performed and are being per-

formed by the defendants and their representatives within the Southern District of New York.

3. Each of the defendants maintains an office, transacts business and/or is found within the Southern District of New York.

II.

Description of Defendants.

4. General Electric Company (hereinafter referred to as "GE") is hereby made a defendant herein. The said defendant GE is a corporation organized and existing under the laws of the State of New York, with its principal place of business in New York, New York, and has transacted business and now transacts business within the Southern District of New York.

5. Westinghouse Electric Corporation (hereinafter referred to as "Westinghouse") is hereby made a defendant herein. The said defendant Westinghouse is a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, with principal places of business in East Pittsburgh, Pennsylvania, and New York, New York, and has transacted business and now transacts business within the Southern District of New York.

6. N. V. Philips' Gloeilampenfabrieken (hereinafter referred to as "Philips") is hereby made a defendant herein. The said defendant Philips is a limited company organized and existing under the laws of The Netherlands, with its principal place of business in Eindhoven, Holland. Philips is found in the Southern District of New York and has transacted business and now transacts business within the Southern District of New York.

III.

The Co-conspirators.

7. The corporations and companies listed below are not named as defendants, but as co-conspirators herein. Each is organized and existing under the laws of the country or state indicated below, and each has its principal place of business as set forth below.

Name	Place of Incorporation	Principal Place of Business	Abbreviated Name
Canadian Radio Patents Limited	Canada	Toronto, Ontario	CRPL
Canadian General Electric Company, Limited (subsidiary of GE)	Canada	Toronto, Ontario	Canadian GE
Canadian Westinghouse Electric Company Limited (subsidiary of Westinghouse)	Canada	Hamilton, Ontario	Canadian Westinghouse
Canadian Radio Manufacturing Corporation Limited	Canada	Leaside, Toronto, Ontario	CRMC
Rogers Majestic Electronics Limited (originally, Standard Radio Manufacturing Corporation Limited)	Canada	Leaside, Toronto, Ontario	Rogers Majestic
Canadian Marconi Company	Canada	Montreal, Quebec	Canadian Marconi
Northern Electric Company, Limited	Canada	Montreal, Quebec	Northern
Radio Corporation of America	Delaware	New York, N. Y.	RCA
RCA Victor Company, Limited (subsidiary of RCA)	Canada	Montreal, Quebec	Victor Ltd.
Western Electric Company Incorporated	New York	New York, N. Y.	Western
North American Philips Company, Inc.	Delaware	New York, N. Y.	NAP
Hazeltine Corporation	Delaware	Little Neck, N. Y.	Hazeltine

8. CRMC, Rogers Majestic, and any other subsidiary or affiliate of Philips owning or having owned any stock interest in CRPL are sometimes hereinafter referred to as "Canadian Philips".

9. Various individuals, not named defendants herein, participated as co-conspirators with the defendants and co-conspirator companies in the offense hereinafter charged. These individuals were and are officers, directors, employees or agents of the defendants and the co-conspirator companies, and others.

IV.

Definitions.

10. As used herein:

(a) "home entertainment apparatus" means radio and/or television receiving sets or parts thereof (other than tubes or transistors) of a type normally intended for home use;

(b) "patent" means a patent which has possible application in the manufacture, sale or distribution of home entertainment apparatus;

(c) "package license" means a standard form license issued for a particular use or type of home entertainment apparatus by a licensor under all of its applicable patents and sublicensing rights;

(d) "company" means a corporation, limited company, proprietary company, association (whether or not incorporated), partnership, or any other business entity, which is formed, organized or incorporated in the United States or elsewhere.

V.

Nature of Trade and Commerce.

11. The manufacture, sale and distribution of home entertainment apparatus is important to the economies of the United States and Canada. In 1956, factory sales of radio and television receiving sets in the United States amounted to approximately $1,400,000,000, with television receiving

set sales accounting for about $1,000,000,000. In 1956, factory sales of radio and television receiving sets in Canada amounted to approximately $225,000,000, with television receiving set sales accounting for about $180,000,000.

12. Canada is a growing market for the sale of home entertainment apparatus. In 1953, about 375,000 homes (approximately 10% of the total) were equipped with television receiving sets. This increased to about 2,500,000 homes (approximately 65% of the total) in 1957.

13. In 1956, there were approximately 30 companies manufacturing radio and/or television receiving sets in Canada. Such leading United States firms as GE, Westinghouse, RCA, The Philco Corporation, and Admiral Corporation own or control Canadian subsidiaries which manufacture and sell home entertainment apparatus in Canada. These subsidiaries are themselves among the leading firms in Canada in that field.

14. Since 1946, imports into Canada of home entertainment apparatus manufactured in the United States have been negligible in comparison to the total volume of such apparatus sold in Canada. In 1956, imports of radio and television receiving sets into Canada from the United States amounted to about $2,350,000, slightly more than 1% of the total sales of such apparatus in Canada. For the most part, the bulk of such imports went to Canadian subsidiaries of United States firms and were usually imported for special purposes.

15. Canadian radio and television broadcasting stations use the same frequencies and wave lengths as United States stations. Home entertainment apparatus manufactured in the United States is capable of being used in Canada either as it leaves the factory or with minor modifications. Broadcasts and telecasts originating on either side of the border are capable of being received and are being received by sets manufactured in either the United States or Canada.

16. Since 1927, all manufacturers of home entertainment apparatus in Canada have been licensed under package licenses issued by CRPL, which functions as a central patent licensing agency in Canada. CRPL is owned in five equal shares by Canadian subsidiaries or affiliates of GE, Westinghouse, Philips, Western, and The English Electric Company Limited of England, respectively. Package licenses issued by CRPL have included and include all the Canadian patents and patent rights owned or controlled by CRPL, GE, Westinghouse, Philips, RCA, Canadian Marconi and others.

VI.

Background of the Conspiracy.

17. On August 30, 1892, GE and various affiliated companies caused the incorporation of Canadian GE. On September 1, 1892, GE assigned to Canadian GE all Canadian patents which GE then owned or which it might thereafter acquire. Since 1924, GE has owned over 95% of the voting stock of Canadian GE and presently owns over 99% of the outstanding voting stock of Canadian GE.

18. In July, 1903, Westinghouse caused the incorporation of Canadian Westinghouse. On October 8, 1903, Westinghouse sold to Canadian Westinghouse all its Canadian patents and the right to patent in Canada such inventions as Westinghouse might make until December 31, 1913. This agreement continued in effect until December 31, 1946 and was succeeded by an agreement effective January 1, 1947. Westinghouse has owned over 75% of the voting stock of Canadian Westinghouse since August, 1955.

19. Northern was incorporated in 1914. At the time of such incorporation Western acquired a 43.6% stock interest in Northern. This stock interest has lessened and Western presently owns 10% of such stock. By an agreement dated April 23, 1914, Northern was licensed by a Western sub-

sidiary, Electrical Properties Limited, under Western's Canadian patents. This agreement was superseded in 1919 by an agreement between International Western Electric Company, Incorporated, another Western subsidiary, and Northern, and was reaffirmed and extended by a 1923 agreement. By a series of assignments in 1925, Western became the direct licensor of Northern under the said 1919 and 1923 agreements.

20. Sometime prior to November 15, 1926, Marconi's Wireless Telegraph Company, Ltd., of England (hereinafter referred to as "MWT"), the then parent of Canadian Marconi, assigned its then present and future Canadian patents and patent rights to Canadian Marconi.

21. Sometime prior to November 15, 1926, Standard Radio Manufacturing Corporation Limited (hereinafter referred to as "Standard") acquired ownership or control of the Canadian rights to the important deForest and Squire patents. On or about September 2, 1929, Standard was renamed Rogers Majestic.

22. In March 1923, Canadian GE, Canadian Westinghouse, Canadian Marconi, Northern, and two other Canadian subsidiaries of Western, entered into a cross-license agreement under which each party granted to the others royalty-free nonexclusive licenses under all Canadian patents owned or controlled by it. This agreement was terminable as to any party except Canadian GE on one year's notice after March 1933, and as to Canadian GE, on December 31, 1944.

23. On August 1, 1924, RCA granted exclusive licenses (with the exclusive rights to institute infringement suits but without the right to sublicense) until July 1, 1945, to Canadian GE and Canadian Westinghouse under RCA's then present and future Canadian patents and applications for patents.

24. On July 22, 1925, Philips gave the so-called "Radio

Group," consisting of International General Electric Company, Incorporated, RCA, and Westinghouse Electric International Company, an exclusive license under its then present and future patents for certain designated "exclusive territory," which included Canada and Newfoundland. Philips further agreed that it would not engage in the manufacture or sale of radio sets, transmitting equipment or tubes in Canada without the consent of the "Radio Group." This agreement was effective until July 1, 1945, and thereafter was to continue in effect unless terminated by not less than three years' notice in writing.

VII.

The Combination and Conspiracy.

25. Beginning on or about November 15, 1926, and continuing thereafter to the date of the filing of this complaint, the defendants, the co-conspirators, and other persons to the plaintiff unknown, have engaged in an unlawful combination and conspiracy in restraint of the aforesaid foreign commerce in home entertainment apparatus, in violation of section 1 of the Sherman Act. The defendants are continuing, and threaten to and will continue, the said offense unless the relief hereinafter prayed for in this complaint is granted.

26. The aforesaid combination and conspiracy has consisted of a continuing agreement and concert of action among the defendants and co-conspirators to prevent, hinder and preclude the importation into Canada from the United States of home entertainment apparatus which could compete in the Canadian Market with home entertainment apparatus manufactured in Canada by Canadian companies, including the Canadian subsidiaries or affiliates of each of the defendants.

27. During the period covered by this complaint, the

said combination and conspiracy has been effectuated from time to time by various means and methods, including, among others:

A. On or about November 15, 1926, Canadian GE, Canadian Westinghouse, Northern, Canadian Marconi, and Standard caused the incorporation of CRPL and caused all outstanding shares of CRPL to be issued to themselves and on or about January 19, 1927, jointly authorized CRPL to sublicense Canadian patents owned or controlled by each of them, such licenses to be issued only upon the unanimous consent on the part of all the shareholders of CRPL.

B. Canadian GE, Canadian Westinghouse, Northern, Canadian Marconi, Standard, Rogers Majestic, and Canadian Philips thereafter continued to authorize CRPL to sublicense Canadian patents owned or controlled by each of them to at least December 6, 1957.

C. By agreements and understandings effective to the date of the filing of this complaint:

1. GE, since at least 1927, has authorized and continued to authorize Canadian GE to grant sublicensing rights to CRPL under GE's Canadian patents.

2. Westinghouse, since at least 1927, has authorized and continued to authorize Canadian Westinghouse to grant sublicensing rights to CRPL under Westinghouse's Canadian patents.

3. Philips, since at least 1945, has authorized and continued to authorize Canadian Philips to grant sublicensing rights to CRPL under Philips' Canadian patents, which, pursuant to an-

agreement between Philips and NAP, include those based on inventions originating with NAP!

D. Western authorized and, until at least 1952, continued to authorize Northern to grant sublicensing rights to CRPL under all Western's Canadian patents.

E. RCA from 1935 to the date of the filing of this complaint has authorized and continued to authorize Victor Ltd. to grant to CRPL the right to sublicense others under RCA's Canadian patents; and Victor Ltd. has granted sublicensing rights to CRPL under RCA's and Victor Ltd.'s Canadian patents during such period.

F. By an agreement effective to the date of the filing of this complaint, Hazeltine granted to CRPL an exclusive license with the right to sublicense others under Hazeltine's Canadian patents.

G. CRPL acquired the Canadian counterpart patents of the United States Parker patents.

H. Since 1927, CRPL has issued package licenses, from time to time, at a fixed and uniform royalty rate to Canadian companies engaged in the manufacture, distribution and sale of home entertainmen apparatus.

I. These said package licenses issued by CRPL have required the licensee to manufacture only in Canada and to refrain from importing home entertainment apparatus manufactured in the United States.

J. CRPL has refused to license the import into Canada of some entertainment apparatus manufactured in the United States.

K. CRPL has threatened to institute, and has instituted, patent infringement suits against dealers undertaking to sell in Canada home entertainment apparatus manufactured in the United States.

L. CRPL has persuaded and induced Canadian Standards Association to refuse to approve, as safe, home entertainment apparatus not manufactured under license from CRPL.

VIII.

Effects of the Combination and Conspiracy.

28. The combination and conspiracy hereinbefore alleged has had the following effects, among others:

A. Trade and commerce between the United States and Canada in home entertainment apparatus has been unreasonably restrained.

B. The Canadian market for home entertainment apparatus has been virtually closed to such apparatus manufactured in the United States.

C. Various United States companies which would otherwise have exported home entertainment apparatus to Canada from the United States have been compelled to manufacture such apparatus in Canada.

D. United States purchasers of home entertainment apparatus have been deprived of the benefits resulting from increased production of such apparatus in the United States.

IX.

Prayer.

Wherefore, plaintiff prays:

1. That the aforesaid combination and conspiracy in restraint of foreign commerce in home entertainment apparatus be adjudged and decreed to be unlawful, and that the agreements, understandings and practices alleged herein be adjudged and decreed to be in violation of section 1 of the Sherman Act.

2. That the Court adjudge and decree that the defendants have combined and conspired to restrain foreign trade and commerce in home entertainment apparatus in violation of section 1 of the Sherman Act.

3. That the defendants and each of them, their officers, directors, agents, representatives, successors, and all persons or corporations acting or authorized to act on behalf of them or any of them, be perpetually enjoined from combining and conspiring to restrain foreign trade and commerce in home entertainment apparatus, and that they be perpetually enjoined from engaging in or participating in practices, contracts, relationships or understandings, or claiming any rights thereunder, having the purpose or effect of continuing, reviving or renewing the aforesaid violation of the Sherman Act.

4. That the Court adjudge and decree that the defendants have used patent rights owned or controlled by them or any of them unlawfully in instituting, effectuating, and maintaining the aforesaid offense, and that the plaintiff have such relief with respect to the defendants' present and future patents and technical information as the Court may deem appropriate and necessary to dissipate the effects of the unlawful activities, and to prevent further unlawful use of patents by them.

5. That the plaintiff have such other and further relief as the nature of the case may require and the Court may deem just and proper.

6. That the plaintiff recover its taxable costs.

Dated: New York, N. Y.

November 24, 1958

William P. Rogers,
Attorney General.

Victor R. Hanson,
Assistant Attorney General.

Baddia J. Roshid,
Richard B. O'Donnel,
Attorneys, Department of Justice.

Harry G. Sklarsky,
John S. James,
Bernard M. Hollander,
Herman Gelfand,
Ralph S. Goodman,
Attorneys, Department of Justice.

PLAINTIFF'S EXHIBIT NO. 45.

United States of America,
Southern District of New York, } ss.

I, James E. Valeche, Clerk of the United States District Court for the Southern District of New York, do hereby certify that the writings annexed to this certificate to wit: photostat copies of Judgments filed Sep. 4, 1962, and Nov. 1, 1962, in the matter of U. S. A. *vs.* General Electric Co., et al., Civ. 140-157 have been compared with their original on file and remaining of record in this office; that they are correct transcripts therefrom and of the whole of the said originals.

In Testimony Whereof I have hereunto subscribed my name and affixed the seal of the said Court at the City of New York, in the Southern District of New York, this 4th day of March in the year of our Lord one thousand nine hundred and sixty-three and of the Independence of the United States the One Hundred and eighty-seventh.

James E. Valeche,
Clerk.

(Seal)

UNITED STATES DISTRICT COURT.

(Caption—140-157)

FINAL JUDGMENT.

Plaintiff, United States of America, having filed its complaint herein on November 24, 1968; defendant General Electric Company having appeared and filed its answer to the complaint on January 12, 1959, denying the substantive allegations thereof; and plaintiff and said defendant by their respective attorneys having severally consented to the entry of this Final Judgment without trial or adjudication of or finding on any issues of fact or law herein and without this Final Judgment constituting evidence or an admission by either of them in respect to any such issue;

Now, Therefore, before any testimony has been taken and without trial or adjudication of or finding on any issue of fact or law herein, and upon consent of the parties as aforesaid, it is hereby

Ordered, Adjudged and Decreed as follows:

I.

This Court has jurisdiction of the subject matter herein and of the parties hereto. The complaint states a claim upon which relief may be granted against defendant General Electric Company (General Electric) under Section 1 of the Act of Congress of July 2, 1890, entitled "An act to protect trade and commerce against unlawful restraints and monopolies," commonly known as the Sherman Antitrust Act, as amended.

II.

As used in this Final Judgment, the term "home entertainment apparatus" shall mean radio and/or television receiving sets of a type normally intended for home use and parts made therefor, manufactured in the United States (other than tubes and solid state devices, including semiconductors); and, with reference to General Electric, the term "other person" shall mean any individual, partnership, association, firm, trustee or legal entity other than General Electric, its subsidiaries and its or their officers, directors, employees and agents when acting in such capacity.

III.

The provisions of this Final Judgment applicable to General Electric shall be binding upon its officers, directors, employees and agents, when acting on behalf of General Electric, and upon those persons in active concert or participation with General Electric who receive actual notice of this Final Judgment by personal service or otherwise.

IV.

General Electric is enjoined and restrained from:

(A) Entering into, adhering to, enforcing or claiming any rights under any contract, agreement, understanding, plan or program with any other person which directly or indirectly restricts or prevents any manufacturer of home entertainment apparatus in the United States from exporting any such apparatus from the United States into Canada; and

(B) Directing or causing or entering into any agreement with a foreign subsidiary of General Electric to take, or actively consenting to such subsidiary taking, any action to restrict or prevent any manu-

facturer in the United States from exporting any home entertainment apparatus from the United States into Canada.

The provisions of this Section IV shall not be construed to prohibit, without more, patent license agreements or assignments.

V.

For the purpose of securing compliance with this Final Judgment, duly authorized representatives of the Department of Justice shall, upon written request of the Attorney General, or the Assistant Attorney General in charge of the Antitrust Division, and on reasonable notice to General Electric made to its principal office, be permitted, subject to any legally recognized privilege, (i) reasonable access during the office hours of General Electric to all books, ledgers, accounts, correspondence, memoranda, and other records and documents in the possession or under the control of General Electric and within the United States relating to any matters contained in this Final Judgment, and (ii) subject to the reasonable convenience of General Electric and without restraint or interference from it, to interview within the United States officers or employees of General Electric, who may have counsel present, regarding any such matters. Upon the written request of the Attorney General or the Assistant Attorney General in charge of the Antitrust Division, and upon reasonable notice made to its principal office, General Electric shall submit such written reports with respect to any of such matters as from time to time may be necessary for the enforcement of this Final Judgment. No information obtained by the means provided in this Section V shall be divulged by any representative of the Department of Justice to any person other than a duly authorized representative of such Department, except in the course of legal

procedings to which the United States is a party for the purpose of securing compliance with this Final Judgment or as otherwise required by law.

VI.

Jurisdiction of this cause is retained for the purpose of enabling either of the parties to this Final Judgment to apply to this Court at any time for such further orders and directions as may be necessary or appropriate in relation to the construction of or carrying out of this Final Judgment, for the modification or termination of any of the provisions thereof, and for the purpose of the enforcement of compliance therewith and the punishment of violations thereof.

New York, New York

Dated: November 1, 1962.

(Illegible),
United States District Judge.

Judgment Entered November 1, 1962.

Herbert A. Charlson,
Clerk.

PLAINTIFF'S EXHIBIT NO. 46.

United States of America,
Southern District of New York. } ss:

I, James E. Valeche, Clerk of the United States District Court for the Southern District of New York, do hereby certify that the writings annexed to this certificate to wit: photostat copies of Judgments filed Sept. 4, 1962, and Nov. 1, 1962, in the matter of U. S. A. *vs.* General Electric Co., et al., Civ. 140-157 have been compared with their originals on file and remaining of record in this office; that they are correct transcripts therefrom and of the whole of the said originals.

In Testimony Whereof I have hereunto subscribed my name and affixed the seal of the said Court at the City of New York, in the Southern District of New York, this 4th day of March in the year of our Lord one thousand nine hundred and sixty-three and of the Independence of the United States the One Hundred and eighty-seventh.

James E. Valleche,
Clerk.

(Seal)

UNITED STATES DISTRICT COURT.
(Caption—140-157)

FINAL JUDGMENT.

Plaintiff, United States of America, having filed its complaint herein on November 24, 1968; defendant Westinghouse Electric Corporation, having appeared and filed its answer to the complaint on January 12, 1959, denying the substantive allegations thereof; and plaintiff and said defendant by their respective attorneys having severally consented to the entry of this Final Judgment without trial or adjudication of or finding on any issues of fact or law herein and without this Final Judgment constituting evidence or an admission by either of them in respect to any such issue;

Now, Therefore, before any testimony has been taken and without trial or adjudication of or finding on any issue of fact or law herein, and upon consent of the parties as aforesaid, it is hereby

Ordered, Adjudged and Decreed as follows:

I.

This Court has jurisdiction of the subject matter herein and of the parties hereto. The complaint states a claim upon which relief may be granted against defendant Westinghouse Electric Corporation (Westinghouse) under Section 1 of the Act of Congress of July 2, 1890, entitled "An act to protect trade and commerce against unlawful restraints and monopolies," commonly known as the Sherman Antitrust Act, as amended.

II.

As used in this Final Judgment, the term "home entertainment apparatus" shall mean radio and/or television receiving sets of a type normally intended for home use and parts made therefor, manufactured in the United States (other than tubes and solid state devices, including semiconductors); and, with reference to Westinghouse, the term "other person" shall mean any individual, partnership, association, firm, trustee or legal entity other than Westinghouse, its subsidiaries and its or their officers, directors, employees and agents when acting in such capacity.

III.

The provisions of this Final Judgment applicable to Westinghouse shall be binding upon its officers, directors, employees and agents, when acting on behalf of Westinghouse, and upon those persons in active concert or participation with Westinghouse who receive actual notice of this Final Judgment by personal service or otherwise.

IV.

Westinghouse is enjoined and restrained from:

(A) Entering into, adhering to, enforcing or claiming any rights under any contract, agreement, understanding, plan or program with any other person which directly or indirectly restricts or prevents any manufacturer of home entertainment apparatus in the United States from exporting any such apparatus from the United States into Canada; and

(B) Directing or causing or entering into any agreement with a foreign subsidiary of Westinghouse to take, or actively consenting to such subsidiary taking, any action to restrict or prevent any manufacturer

in the United States from exporting any home entertainment apparatus from the United States into Canada.

The provisions of this Section IV shall not be construed to prohibit, without more, patent license agreements or assignments.

V.

For the purpose of securing compliance with this Final Judgment, duly authorized representatives of the Department of Justice shall, upon written request of the Attorney General, or the Assistant Attorney General in charge of the Antitrust Division, and on reasonable notice to Westinghouse made to its principal office, be permitted, subject to any legally recognized privilege, (i) reasonable access during the office hours of Westinghouse to all books, ledgers, accounts, correspondence, memoranda, and other records and documents in the possession or under the control of Westinghouse and within the United States relating to any matters contained in this Final Judgment, and (ii) subject to the reasonable convenience of Westinghouse and without restraint or interference from it, to interview within the United States officers or employees of Westinghouse, who may have counsel present, regarding any such matters. Upon the written request of the Attorney General or the Assistant Attorney General in charge of the Antitrust Division, and upon reasonable notice made to its principal office, Westinghouse shall submit such written reports with respect to any of such matters as from time to time may be necessary for the enforcement of this Final Judgment. No information obtained by the means provided in this Section V shall be divulged by any representative of the Department of Justice to any person other than a duly authorized representative of such Department, except in the course of legal proceedings to which the

United States is a party for the purpose of securing compliance with this Final Judgment or as otherwise required by law.

VI.

Jurisdiction of this cause is retained for the purpose of enabling either of the parties to this Final Judgment to apply to this Court at any time for such further orders and directions as may be necessary or appropriate in relation to the construction of or carrying out of this Final Judgment, for the modification or termination of any of the provisions thereof, and for the purpose of the enforcement of compliance therewith and the punishment of violations thereof.

September 4, 1962.

(Illegible)
United States District Judge.

Consented to this 4th day of September 1962.

Herman Gelfand, for the plaintiff, United States of America.

(Illegible), for the defendant, Westinghouse Electric Corporation.

Judgment Entered Sept. 4, 1962.

Herbert A. Charlson,
Clerk.

United States of America,
Southern District of New York. } ss:

I, James E. Valeche, Clerk of the United States District Court for the Southern District of New York, do hereby certify that the writings annexed to this certificate to wit: photostat copy of Complaint filed Nov. 24, 1958, in the matter of—*U. S. A.* v. *General Electric Co., et al.*, Civ. 140-157 have been compared with their originals on file and remaining of record in this office; that they are correct transcripts therefrom and of the whole of the said originals.

In Testimony Whereof I have hereunto subscribed my name and affixed the seal of the said Court at the City of New York, in the Southern District of New York, this 4th day of March in the year of our Lord one thousand nine hundred and sixty-three and of the Independence of the United States the One Hundred and eighty-seventh.

James E. Valeche,

(Seal) *Clerk.*

PLAINTIFF'S EXHIBIT NO. 47.

UNITED STATES DISTRICT COURT.
* * (Caption—140-157) * *

FINAL JUDGMENT.

The plaintiff, United States of America, having filed its complaint herein on November 24, 1958; defendant N. V. Philips' Gloeilampenfabrieken (hereinafter referred to as Philips) having appeared and filed its answer to the complaint on January 12, 1959, denying the substantive allegations thereof; and the plaintiff and said defendant by their respective attorneys having severally consented to the entry of this Final Judgment without trial or adjudication of or finding on any issues of fact or law herein and without this Final Judgment constituting evidence or an admission by either of them in respect to any such issue;

Now, therefore before any testimony has been taken and without trial or adjudication of or finding on any issue of fact or law herein, and upon consent of the parties as aforesaid, it is hereby

Ordered, Adjudged and Decreed as follows:

I.

This Court has jurisdiction of the subject matter herein and of the parties hereto. The complaint states a claim upon which relief may be granted against defendant Philips under Section 1 of the Act of Congress of July 2, 1890, entitled "An act to protect trade and commerce against unlawful restraints and monopolies," commonly known as the Sherman Antitrust Act, as amended.

II.

As used in this Final Judgment, the term "home entertainment apparatus" shall mean radio and/or television receiving sets of a type normally intended for home use and parts made therefor, manufactured in the United States (other than tubes and solid state devices, including semiconductors); and, with reference to defendant Philips the term "other person" shall mean any individual, partnership, association, firm, trustee or legal entity other than said defendant, its subsidiaries and its or their officers, directors, employees and agents when acting in such capacity.

III.

The provisions of this Final Judgment applicable to defendant Philips shall be binding upon its officers, directors, employees and agents, when acting on behalf of Philips, and upon those persons in active concert or participation with Philips who receive actual notice of this Final Judgment by personal service or otherwise.

IV.

Philips is enjoined and restrained from:

A. Entering into, adhering to, enforcing or claiming any rights under any contract, agreement, understanding, plan or program with any other person which directly or indirectly restricts or prevents any manufacturer of home entertainment apparatus in the United States from exporting any such apparatus from the United States into Canada; and

B. Directing or causing or entering into any agreement with a foreign subsidiary of Philips to take,

or actively consenting to such subsidiary taking, any action to restrict or prevent any manufacturer in the United States from exporting any home entertainment apparatus from the United States into Canada.

The provisions of this Section IV shall not be construed to prohibit, without more, patent license agreements or assignments.

V.

Service of process in any proceeding for the purpose of construing, carrying out, modifying, terminating or enforcing compliance with any provision of this Final Judgment may be effected on defendant Philips by personal service upon Nederlandsche Handel-Maatschappij N. V. New York Agency, and Philips hereby constitutes said Nederlandsche Handel-Maatschappij N. V. New York Agency its agent for such service. Service so made shall be deemed service on Philips. If the said Nederlandsche Handel-Maatschappij N. V. New York Agency shall refuse to continue to act as such agent at any time before the expiration of five years from the date of entry of this Final Judgment, then Philips shall immediately notify the Department of Justice of such refusal and shall within ten days appoint another person located within the Southern District of New York and otherwise acceptable to the Department of Justice to act as such agent. Service of process on such substituted agent shall be deemed service on Philips. Philips is enjoined and restrained from terminating, or attempting to terminate the authority of said Nederlandsche Handel-Maatschappij N. V. New York Agency or of any substitute agent appointed pursuant to this Section V unless it shall within ten days appoint another person located within the Southern District of New York and otherwise acceptable to the Department of Justice to act as such agent.

VI.

For the purpose of securing compliance with this Final Judgment, duly authorized representatives of the Department of Justice shall, upon written request of the Attorney General, or the Assistant Attorney General in charge of the Antitrust Division, and on reasonable notice to Philips' agent appointed pursuant to Section V hereof, be permitted, subject to any legally recognized privilege, (i) reasonable access during the office hours of said agent to all books, ledgers, accounts, correspondence, memoranda, and other records and documents in the possession or under the control of said agent and within the United States relating to any matters contained in this Final Judgment, and (ii) subject to the reasonable convenience of said agent and without restraint or interference from it, to interview within the United States officers or employees of said agent, who may have counsel present, regarding any such matters. Upon the written request of the Attorney General or the Assistant Attorney General in charge of the Antitrust Division, and upon reasonable notice made to its principal office, said agent shall submit such written reports with respect to any of such matters as from time to time may be necessary for the enforcement of this Final Judgment. No information obtained by the means provided in this Section VI shall be divulged by any representative of the Department of Justice to any person other than a duly authorized representative of such Department, except in the course of legal proceedings to which the United States is a party for the purpose of securing compliance with this Final Judgment or as otherwise required by law.

VII.

Jurisdiction of this cause is retained for the purpose of enabling either of the parties to this Final Judgment to apply to this Court at any time for such further orders and directions as may be necessary or appropriate in relation to the construction of or carrying out of this Final Judgment, for the modification or termination of any of the provisions thereof, and for the purpose of the enforcement of compliance therewith and the punishment of violations thereof.

(Illegible),
United States District Judge.

June 25, 1962.

Judgment entered June 25, 1962.

Herbert A. Charlson,
Clerk.

PLAINTIFF'S EXHIBIT NO. 48.

AGREEMENT FOR SETTLEMENT OF LITIGATIONS

Hazeltine Research, Inc. vs. Zenith Radio Corporation Plaintiff's Exh. No. 48 (C.A. No. 54-C 1847)

1. All parties to the Delaware action (C. A. #1247, consolidated action) and to the Chicago action (#48C1818) to dismiss all their claims with prejudice; RCA, GE and Western Electric each to grant Zenith and Rauland, respectively, a general release and Zenith and Rauland each to grant RCA, GE and Western Electric, respectively, a general release, each such release, to the extent either party may request, to bind or benefit the parent and subsidiaries of the party giving or receiving such release ("subsidiaries" to include corporations in which the party has stock ownership of 50% or more).

2. RCA to grant Zenith and Rauland and Zenith and Rauland to grant RCA royalty-free licenses for radio and TV receiving sets, including tubes therefor, (excluding color TV, color tubes and Phonevision) for a term beginning on the date hereof and extending to January 1, 1963 under all United States ~~and foreign~~ patents ~~issued prior to September 1, 1957~~ to the extent to which each of them has the right to grant such licenses (other than the patents to be licensed to Zenith and Rauland pursuant to paragraphs 4 and 5 hereof). ~~Such licenses to include grants of immunity, to the extent each of them has the right to make such grants, under foreign patents of RCA, Zenith and Rauland with respect to the apparatus manufactured under such licenses.~~

Solicitors for RCA
Of Counsel for Western Electric
Attorneys for General Electric Co.

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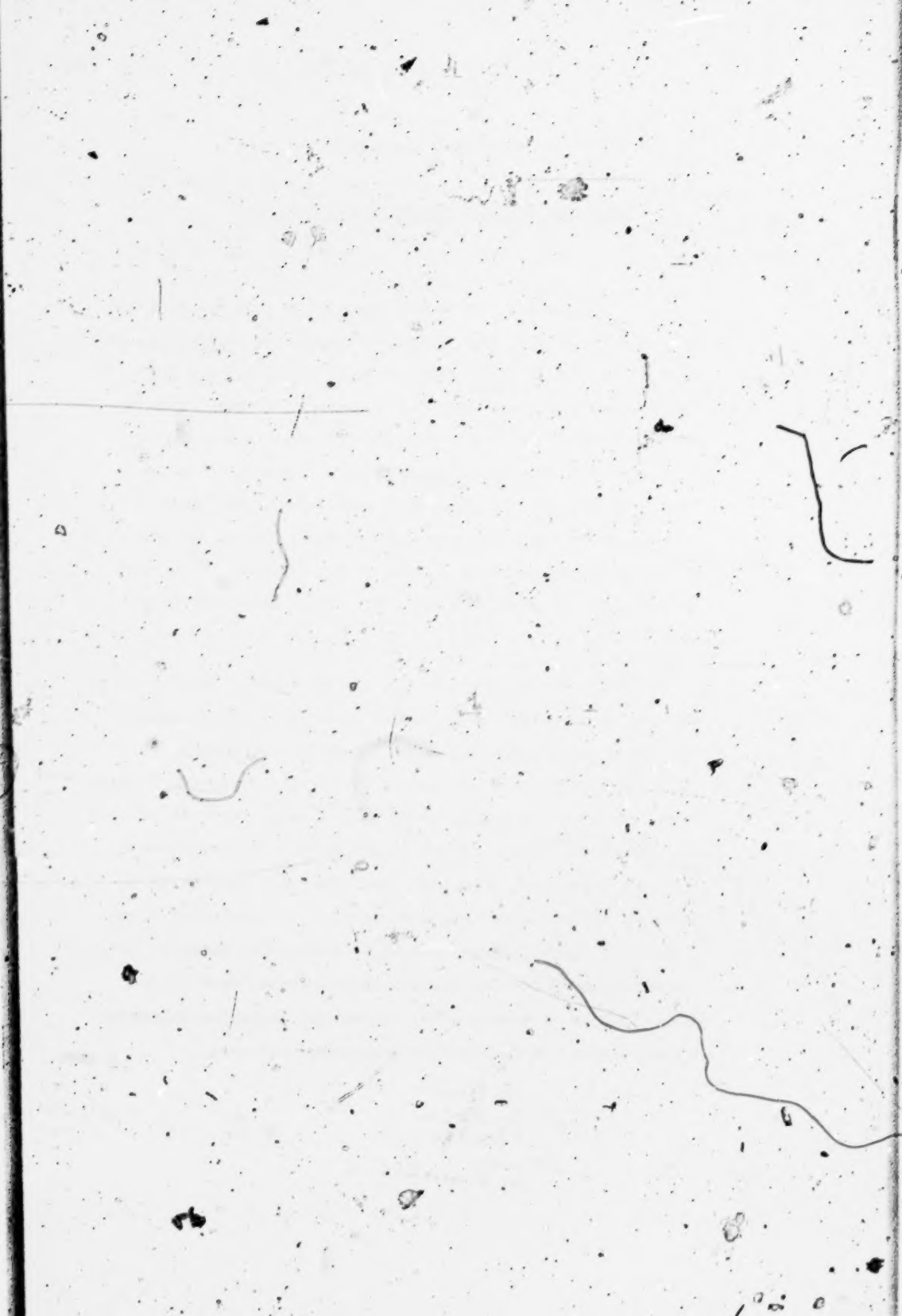


3. The amount which Zenith and Rauland owe RCA for infringement of RCA's patents and the amount which RCA owes Zenith and Rauland for infringement of Zenith's and Rauland's patents to be determined by an arbitrator mutually acceptable to Zenith and Rauland on the one hand and RCA on the other (the parties having agreed that if he is available, Mr. Justice Minton shall be the arbitrator and if Mr. Justice Minton should not be available the arbitrator to be a man of comparable standing). In respect of Zenith's and Rauland's infringement claims against RCA, the amount to be determined shall be between a minimum of $1,700,000 and a maximum of $2,100,000; in respect of RCA's claim against Zenith and Rauland, the amount to be determined shall be between a minimum of $2,800,000 and a maximum of $3,700,000. In determining the amounts owed for infringement as aforesaid, the arbitrator shall consider only infringement and extent of use, and only patents relating to radio and TV receiving sets, including tubes therefor, (excluding color TV, color tubes and Phonevision) it being agreed that the RCA patents involved are those which RCA is now asserting against Zenith and Rauland in the aforesaid Delaware and Chicago actions.

4. OT on the one hand and Zenith and Rauland on the other to exchange royalty-free licenses for radio and TV receiving sets, including tubes therefor, (excluding color TV

and transmission and foreign issued prior to September 1, 1957 and color tubes), under all United States patents to the extent to which each of them has the right to grant such licenses, both to be retroactive to January 1, 1947 and extending to January 1, 1963 in a form satisfactory to them, ~~such licenses to include grants of immunity to the extent each of them has the right to make such grants under foreign patents of GE, Zenith and Rauland with respect to any apparatus manufactured under such licenses.~~

5. Western Electric to grant Zenith and Rauland royalty-free licenses for radio and TV broadcast receiving sets, including tubes therefor (excluding color TV, color tubes and transmission), and Zenith and Rauland to grant Western and companies of the Bell system royalty-free licenses for equipment useful in furnishing common carrier communications services (excluding color TV, color tubes, and foreign and transmission), under all United States patents, issued prior to September 1, 1957, to the extent to which each of them has the right to grant such licenses, both to be retroactive to January 1, 1947 and extending to January 1, 1963 in a form satisfactory to them, ~~such licenses to include grants of immunity to the extent each of them has the right to make such grants under foreign patents with respect to any apparatus manufactured under such licenses.~~

6. The First National Bank of Chicago will undertake to pay Zenith and Rauland the aggregate sum of $10,000,000 in equal annual installments of $1,000,000 payable without interest on the first day of October in each year in accordance

with the attached undertaking of said Bank; Western Electric having arranged to make its payment to said Bank in connection with the above-mentioned undertaking on or before October 1, 1957 shall have no obligation to make any further contribution on account of said undertaking and the balance of such contributions shall be the sole obligation of RCA and GE .

For Zenith and Hazeltine

For RCA

For GE

For Western Electric

September 9 , 1957

PLAINTIFF'S EXHIBIT NO. 49.

Hazeltine Research, Inc.
vs. Zenith Radio Corporation
Plaintiff's Exh. No. 49
C.A. No. 59-C-1847

CHAPTER 203.

An Act respecting Patents of Invention.

SHORT TITLE.

1. This Act may be cited as the *Patent Act*. 1935, c. 32, s. 1. Short title.

INTERPRETATION.

2. In this Act, and in any rule, regulation or order made under it, Definitions.

(a) "applicant" includes an inventor and the legal representatives of an applicant or inventor; "Applicant."

(b) "Commissioner" means the Commissioner of Patents; "Commissioner."

(c) "Exchequer Court" means the Exchequer Court of Canada; "Exchequer Court."

(d) "invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter; "Invention."

(e) "legal representatives" includes heirs, executors, administrators, guardians, curators, tutors, assigns and all other persons claiming through or under applicants for patents and patentees of inventions; "Legal representatives."

(f) "Minister" means the Secretary of State of Canada or such other Minister of the Crown as may be appointed by the Governor in Council to administer this Act; "Minister."

(g) "patent" means letters patent for an invention; "Patent."

(h) "patentee" means the person for the time being entitled to the benefit of a patent for an invention; "Patentee."

(i) "regulation" and "rule" include rule, regulation and form; "Regulation" and "rule."

(j) "work on a commercial scale" means the manufacture of the article or the carrying on of the process described and claimed in a specification for a patent, in or by means of a definite and substantial establishment or organization and on a scale that is adequate and reasonable under the circumstances. 1935, c. 32, s. 2. "Work on a commercial scale."

sioner, commences an action to set aside the prior patent, so far as it covers the invention in question, but if such action is so commenced and diligently prosecuted, the application shall not be deemed to have been abandoned unless the applicant fails to proceed upon it within a reasonable time after the action has been finally disposed of. Action to set aside prior patent.

(3) Where the application was filed within one year from the date of the filing of the application for the prior patent, the provisions of subsection (1) do not apply to the determination of the respective rights of the parties to such action. 1935, c. 32, s. 61; 1947, c. 23, s. 17. When provisions of subsection (1) do not apply.

JUDGMENTS.

64. A certificate of the judgment voiding in whole or in part any patent shall, at the request of any person filing it to make it of record in the Patent Office, be entered on the margin of the enrolment of the patent in the Patent Office, and the patent or such part thereof as is so voided shall thereupon be and be held to have been void and of no effect, unless the judgment is reversed on appeal as hereinafter provided. 1935, c. 32, s. 62. Judgment voiding patent to be filed.

65. Every judgment voiding in whole or in part or refusing to void in whole or in part any patent is subject to appeal to any court having appellate jurisdiction in other cases decided by the court by which such judgment was rendered. 1935, c. 32, s. 63. Appeal.

CONDITIONS.

66. (1) The Commissioner may, at any time, by notice in writing addressed to the patentee of any patent specified by him, or to his registered representative in Canada, and to every person who has a registered interest in such patent, require the patentee and such persons in respect of such specified patent to transmit and deliver to the Commissioner within sixty days from the date of such notice, or within such further time as the Commissioner may allow, a return stating Information relating to patents.

(a) whether the patented invention is being worked on a commercial scale in Canada, and the place where and the name and address of the person by whom the patented invention is being so worked, and

(b) the reasons, if any, why such patented invention is not being worked on a commercial scale in Canada.

(2) The failure of the patentee or his registered representative in Canada, or that of any such person having a registered interest to comply with the terms of the notice mentioned in subsection (1), shall be deemed to be an admission on the part of the patentee or the person, as the case Effect of failure to comply.

case may be, so failing, that the patented invention is not being worked on a commercial scale in Canada. 1935, c. 32, s. 64.

Abuse of rights under patents.

67. (1) The Attorney General of Canada or any person interested may at any time after the expiration of three years from the date of the grant of a patent apply to the Commissioner alleging in the case of that patent that there has been an abuse of the exclusive rights thereunder and asking for relief under this Act.

What amounts to such abuse.

(2) The exclusive rights under a patent shall be deemed to have been abused in any of the following circumstances:

Not working patented invention.

(a) if the patented invention (being one capable of being worked within Canada) is not being worked within Canada on a commercial scale, and no satisfactory reason can be given for such non-working, but if an application is presented to the Commissioner on this ground, and the Commissioner is of opinion that the time that has elapsed since the grant of the patent has by reason of the nature of the invention or for any other cause been insufficient to enable the invention to be worked within Canada on a commercial scale, the Commissioner may make an order adjourning the application for such period as will in his opinion be sufficient for that purpose;

Prevention of working by importation.

(b) if the working of the invention within Canada on a commercial scale is being prevented or hindered by the importation from abroad of the patented article by the patentee or persons claiming under him, or by persons directly or indirectly purchasing from him, or by other persons against whom the patentee is not taking or has not taken any proceedings for infringement;

Not meeting demand.

(c) if the demand for the patented article in Canada is not being met to an adequate extent and on reasonable terms;

Prejudice to trade by refusal to licence.

(d) if, by reason of the refusal of the patentee to grant a licence or licences upon reasonable terms, the trade or industry of Canada or the trade of any person or class of persons trading in Canada, or the establishment of any new trade or industry in Canada, is prejudiced, and it is in the public interest that a licence or licences should be granted;

Prejudice by reason of conditions attached.

(e) if any trade or industry in Canada, or any person or class of persons engaged therein, is unfairly prejudiced by the conditions attached by the patentee, whether before or after the passing of this Act, to the purchase, hire, licence, or use of the patented article, or to the using or working of the patented process;

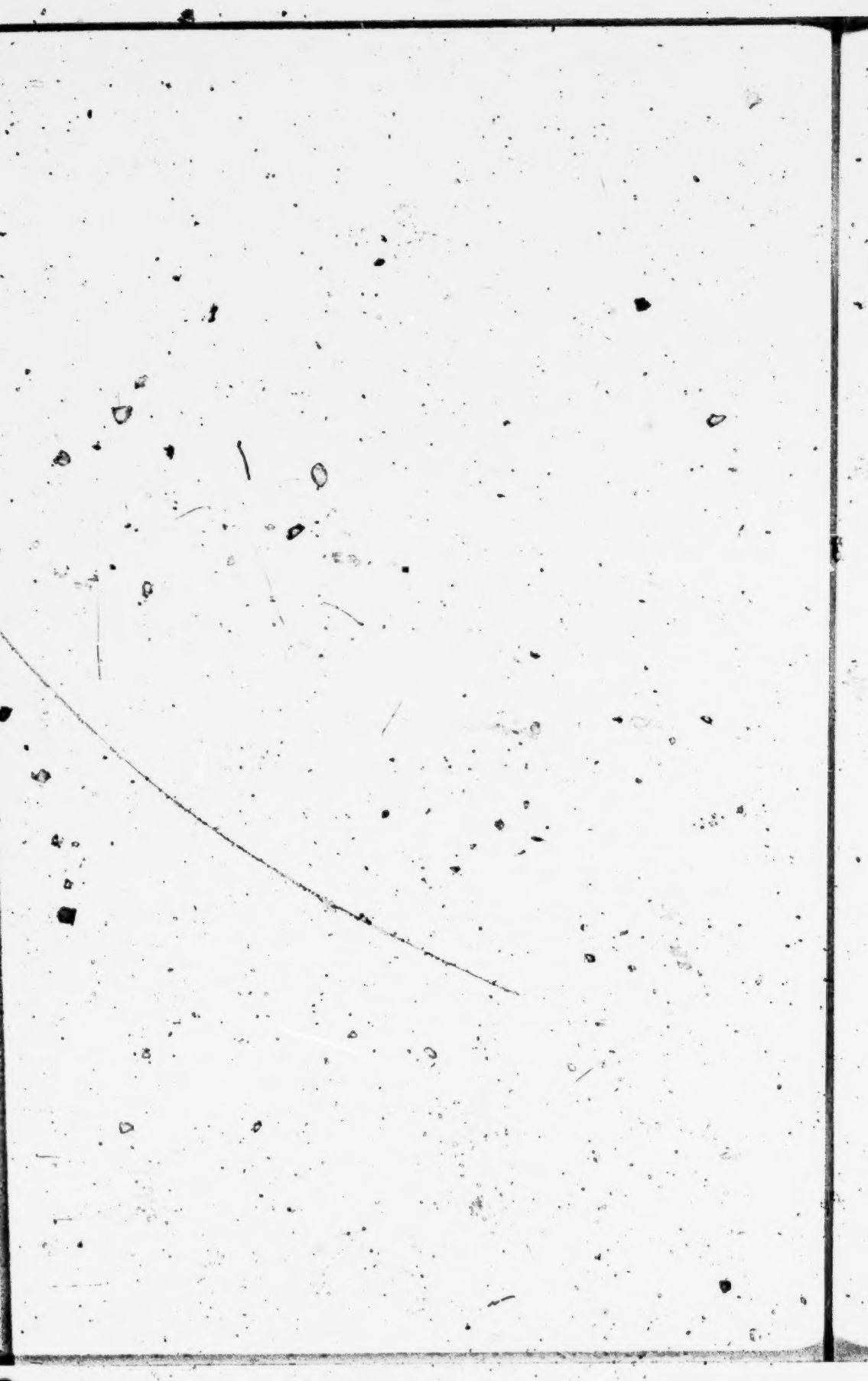
(f) if it is shown that the existence of the patent, being a patent for an invention relating to a process involving the use of materials not protected by the patent or for an invention relating to a substance produced by such a process, has been utilized by the patentee so as unfairly to prejudice in Canada the manufacture, use or sale of any such materials. Prejudice in other respects.

(3) It is declared with relation to every paragraph of subsection (2) that, for the purpose of determining whether there has been any abuse of the exclusive rights under a patent, it shall be taken that patents for new inventions are granted not only to encourage invention but to secure that new inventions shall so far as possible be worked on a commercial scale in Canada without undue delay. 1935, c. 32, s. 65. Declaration of basis of grants of patents.

68. On being satisfied that a case of abuse of the exclusive rights under a patent has been established, the Commissioner may exercise any of the following powers as he may deem expedient in the circumstances: Powers of Commissioner in cases of abuse.

(a) he may order the grant to the applicant of a licence on such terms as the Commissioner may think expedient, including a term precluding the licensee from importing into Canada any goods the importation of which, if made by persons other than the patentee or persons claiming under him would be an infringement of the patent, and in such case the patentee and all licensees for the time being shall be deemed to have mutually covenanted against such importation; a licensee under this paragraph is entitled to call upon the patentee to take proceedings to prevent infringement of the patent, and if the patentee refuses or neglects to do so within two months after being so called upon, the licensee may institute proceedings for infringement in his own name as though he were the patentee, making the patentee a defendant; a patentee so added as defendant is not liable for any costs unless he enters an appearance and takes part in the proceedings; service on the patentee may be effected by leaving the writ at his address or at the address of his representative for service as appearing in the records of the Patent Office; in settling the terms of a licence under this paragraph the Commissioner shall be guided as far as may be by the following considerations: Compulsory licences.

(i) he shall, on the one hand, endeavour to secure the widest possible user of the invention in Canada consistent with the patentee deriving a reasonable advantage from his patent rights,



(ii) he shall, on the other hand, endeavour to secure to the patentee the maximum advantage consistent with the invention being worked by the licensee at a reasonable profit in Canada, and

(iii) he shall also endeavour to secure equality of advantage among the several licensees, and for this purpose may, on due cause being shown, reduce the royalties or other payments accruing to the patentee under any licence previously granted, and in considering the question of equality of advantage, the Commissioner shall take into account any work done or outlay incurred by any previous licensee with a view to testing the commercial value of the invention or to securing the working thereof on a commercial scale in Canada;

Exclusive compulsory licences.

(b) if the Commissioner is satisfied that the invention is not being worked on a commercial scale within Canada, and is such that it cannot be so worked without the expenditure of capital for the raising of which it will be necessary to rely on the exclusive rights under the patent, he may, unless the patentee or those claiming under him will undertake to find such capital, order the grant to the applicant, or any other person, or to the applicant and any other person or persons jointly, if able and willing to provide such capital, of an exclusive licence on such terms as the Commissioner may think just, but subject as hereafter in this Act provided;

Order for a licence.

(c) if the Commissioner is satisfied that the exclusive rights have been abused in the circumstances specified in paragraph *(f)* of subsection (2) of section 67, he may order the grant of licences to the applicant and to such of his customers, and containing such terms, as the Commissioner may think expedient;

Revocation of patent.

(d) if the Commissioner is satisfied that the objects of this section and section 67 cannot be attained by the exercise of any of the foregoing powers, he shall order the patent to be revoked, either forthwith or after such reasonable interval as may be specified in the order, unless in the meantime such conditions as may be prescribed in the order with a view to attaining the objects of this section and section 67 are fulfilled, and the Commissioner may, on reasonable cause shown in any case, by subsequent order extend the interval so specified; but the Commissioner shall

 make

make no order for revocation which is at variance with any treaty, convention, arrangement, or engagement with any other country to which Canada is a party;

(e) if the Commissioner is of opinion that the objects of this section and section 67 will be best attained by making no order under the above provisions of this section, he may make an order refusing the application and dispose of any question as to costs thereon as he thinks just. 1935, c. 32, s. 66; 1947, c. 23, s. 18. Refusal of order.

69. (1) In settling the terms of any such exclusive licence as is provided in paragraph *(b)* of section 68, due regard shall be had to the risks undertaken by the licensee in providing the capital and working the invention, but, subject thereto, the licence shall be so framed as Terms of order for licence.

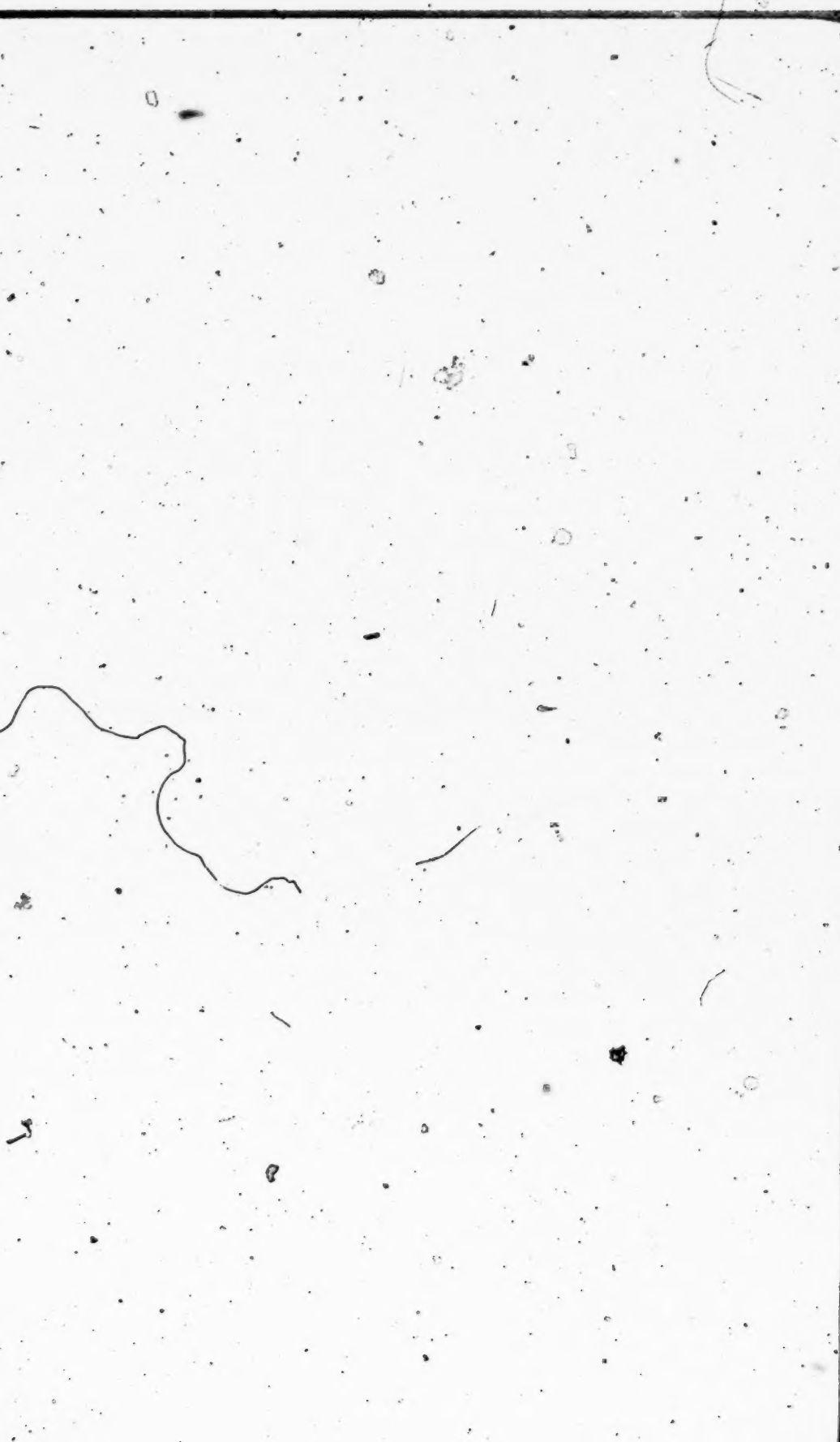
(a) to secure to the patentee the maximum royalty compatible with the licensee working the invention within Canada on a commercial scale and at a reasonable profit, and

(b) to guarantee to the patentee a minimum yearly sum by way of royalty, if and so far as it is reasonable so to do, having regard to the capital requisite for the proper working of the invention and all the circumstances of the case;

and, in addition to any other powers expressed in the licence or order, the licence and the order granting the licence shall be made revocable at the discretion of the Commissioner if the licensee fails to expend the amount specified in the licence as being the amount that he is able and willing to provide for the purpose of working the invention on a commercial scale within Canada, or if he fails so to work the invention within the time specified in the order.

(2) In deciding to whom such an exclusive licence is to be granted the Commissioner shall, unless good reason is shown to the contrary, prefer an existing licensee to a person having no registered interest in the patent. Existing licensees preferred.

(3) The order granting an exclusive licence under section 68 operates to take away from the patentee any right that he may have as patentee to work or use the invention and to revoke all existing licences, unless otherwise provided in the order, but on granting an exclusive licence the Commissioner may, if he thinks it fair and equitable, make it a condition that the licensee shall Effect of order for licence.



give proper compensation to be fixed by the Commissioner for any money or labour expended by the patentee or any existing licensee in developing or exploiting the invention. 1935, c. 32, s. 67.

Contents of applications.

70. (1) Every application presented to the Commissioner under section 67 or 68 shall set out fully the nature of the applicant's interest and the facts upon which the applicant bases his case and the relief which he seeks; the application shall be accompanied by statutory declarations verifying the applicant's interest and the facts set out in the application.

Service on patentee and others interested.

(2) The Commissioner shall consider the matters alleged in the application and declarations, and, if satisfied that the applicant has a *bona fide* interest and that a *prima facie* case for relief has been made out, he shall direct the applicant to serve copies of the application and declarations upon the patentee or his representative for service and upon any other persons appearing from the records of the Patent Office to be interested in the patent, and the applicant shall advertise the application in the *Canada Gazette* and the Canadian Patent Office Record. 1935, c. 32, s. 68.

Advertising.

Opposition and counter statement.

71. (1) If the patentee or any person is desirous of opposing the granting of any relief under sections 67 to 72, he shall, within such time as may be prescribed or within such extended time as the Commissioner may on application further allow, deliver to the Commissioner a counter statement verified by a statutory declaration fully setting out the grounds on which the application is to be opposed.

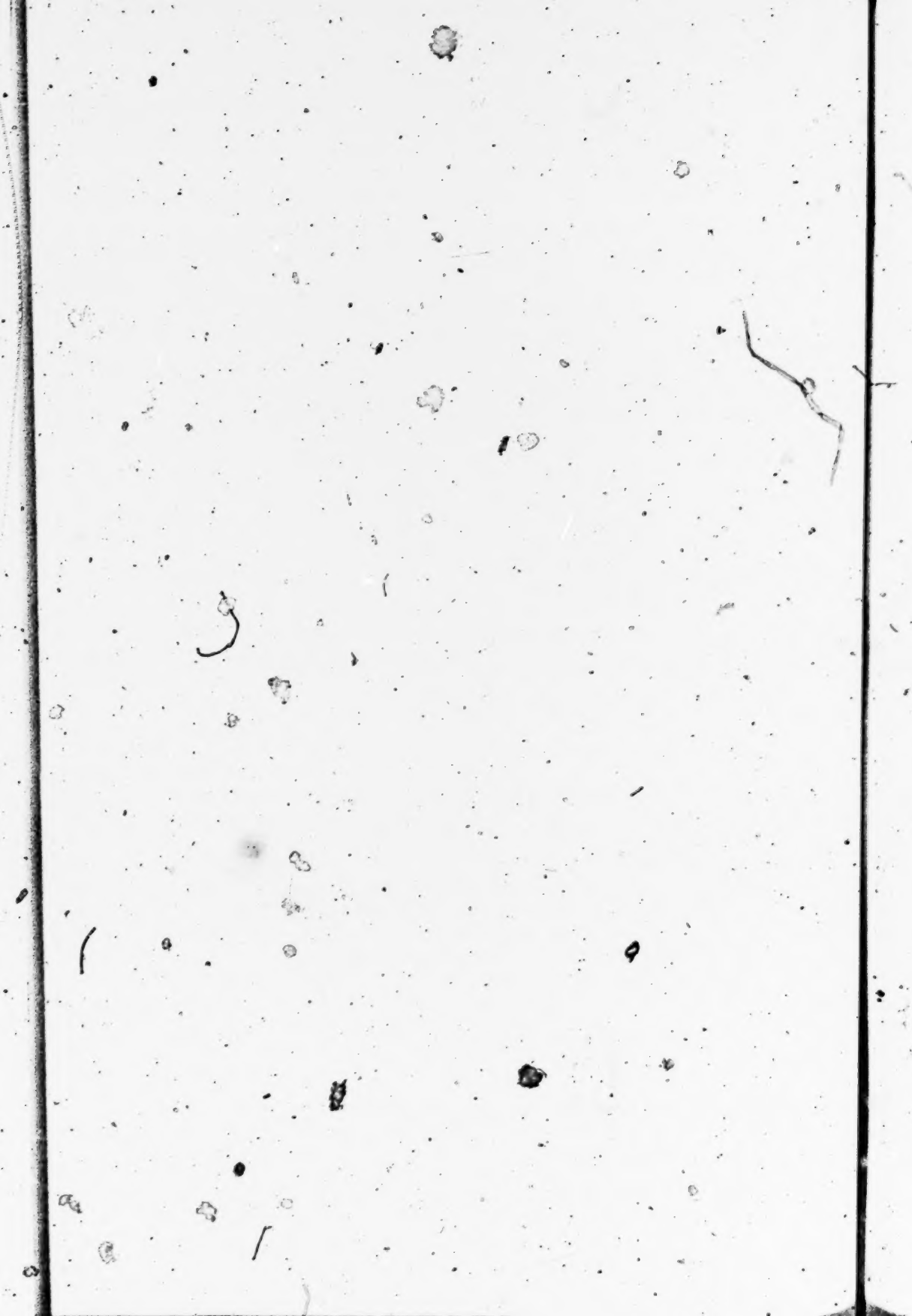
Attendance for cross-examination.

(2) The Commissioner shall consider the counter statement and declarations in support thereof and may thereupon dismiss the application if satisfied that the allegations in the application have been adequately answered, unless any of the parties demands a hearing or unless the Commissioner himself appoints a hearing; in any case the Commissioner may require the attendance before him of any of the declarants to be cross-examined or further examined upon matters relevant to the issues raised in the application and counter statement, and he may, subject to due precautions against disclosure of information to rivals in trade, require the production before him of books and documents relating to the matter in issue.

Reference to Exchequer Court.

(3) In any case where the Commissioner does not dismiss an application as hereinbefore provided, and

(a) if the parties interested consent, or



(b) if the proceedings require any prolonged examination of documents or any scientific or local investigation that cannot in the opinion of the Commissioner conveniently be made before him,

the Commissioner with the approval in writing of the Minister may order the whole proceedings or any issue of fact arising thereunder to be referred to the Exchequer Court, which has jurisdiction in the premises, and where the whole proceedings are so referred, the judgment, decision or order of said Court is final; and where a question or issue of fact is so referred, the said Court shall report its findings to the Commissioner. 1935, c. 32, s. 69.

Licence deemed to be by deed.

72. (1) Any order for the grant of a licence under this Act, without prejudice to any other method of enforcement, operates as if it were embodied in a deed granting a licence executed by the patentee and all other necessary parties.

Exception.

(2) The provisions of sections 67 to 72 do not apply to patents granted subject to the provisions of section 47.

"Patented article."

(3) For the purposes of sections 67 to 72, the expression "patented article" includes articles made by a patented process. 1935, c. 32, s. 70.

Appeal to Exchequer Court.

73. All orders and decisions of the Commissioner under sections 67 to 72 are subject to appeal to the Exchequer Court, and on any such appeal the Attorney General of Canada or such counsel as he may appoint is entitled to appear and be heard. 1935, c. 32, s. 71.

CAVEATS.

Intending applicant for patent may file a caveat.

74. (1) Any intending applicant for a patent who has not yet perfected his invention and is in fear of being despoiled of his idea, may file in the Patent Office a document setting forth a description of his invention so far as it has proceeded, with or without plans, at his own will; and the Commissioner, on payment of the prescribed fee shall cause that document, which shall be called a *caveat*, to be preserved in secrecy with the exception that he shall deliver copies thereof whenever required by the applicant or by any judicial tribunal; the secrecy of the document ceases when the applicant obtains a patent for his invention.

Notice of application by another to be sent to person filing caveat.

(2) Where application is made by any other person for a patent for any invention with which such *caveat* may in any respect interfere the Commissioner shall forthwith give notice

PLAINTIFF'S EXHIBIT NO. 50.

(Seal)

Canada

Royal Commission on Patents, Copyright and Industrial Designs

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Report on
Patents of Invention

Division II—The International Convention

Section 1. National Treatment

Canada is a party to what is called "The International Convention for the Protection of Industrial Property" (to be referred to as "The International Convention"), that is, the Union Convention of Paris, March 20, 1883, for the Protection of Industrial Property, revised at Brussels on December 14, 1900, at Washington on June 2, 1911, at The Hague on November 6, 1925, and at London on June 2, 1934. A Conference for Revision was held at Lisbon in October, 1958 and certain further revisions took place. Canada has not signed the Lisbon revised convention but has the right to accede to it. The Lisbon Convention contains one provision we do not like, the provision that industrial designs shall be protected in all the countries of the Union. In our report on Industrial Designs we said that there was nothing in any international convention, present or prospective, obliging Canada to protect industrial designs. If the Lisbon Revision is ratified by Canada this statement will no longer be true. We

are mindful of the expression of our indisposition to favor such an international obligation, as expressed in our report on Copyright. Nevertheless there would be, we think, substantial advantages to Canada in accession and on the whole we think that Canada should accede.

In appendix D are set out extracts of the more important provisions of the Convention relating to patents. In these extracts we have arranged the text of the Convention as revised at Lisbon so that changes over the London 1934 Revision can be readily observed. Using the text of the London Revision as a basis, matter deleted from that text is enclosed in brackets and new matter added by the Lisbon Conference is italicized. For the complete text showing all the Lisbon revisions, see vol. 30 of the Canadian Patent Reporter, 1959, pp. 76-97.

Canada, in respect of the protection of patents, as a consequence of Articles 2 and 3, must grant to nationals of other Convention countries and those treated as such under Article 3, national treatment—that is, the same protection that Canada grants to Canadian nationals. As the list of Convention countries, that is, of countries which are parties to the Convention, includes a number of countries prolific in inventions, such as the United States, the United Kingdom, Germany, France, Italy, etc., our Patent Office, as noted above, serves a very much larger number of foreign inventors than of Canadian inventors. But, of course, Canadian inventors are assured of patent protection in the other Convention countries identical with that which those countries extend to their own nationals.

* * * * * *

Canadian Radio Patents Limited.

Public representations were made to the Commission by S. G. Walters Limited, a company engaged in the distribution of various kinds of household electrical appliances,

that the structure and operation of Canadian Radio Patents Limited should be examined to determine whether that Company offended the patent law insofar as it now prevails or ought to prevail in Canada, more particularly in reference to the utilization of a portfolio of patent to preclude the importation of certain articles into Canada. Similar representations were made by others.

Canadian Radio Patents Limited (hereinafter called CRPL) was incorporated in 1926 for the purpose of acting as a patent licensing agency. At the time of the presentation of its brief to this Commission it acted as the central patent licensing agency in the administration of patent rights in the radio, television and general electronic fields in respect of patents owned by its then five shareholders.

Canadian General Electric Company
Canadian Westinghouse Company
Northern Electric Company
Canadian Marconi Company, and
Canadian Radio Manufacturing Company.

It also acted as licensing agent in Canada for RCA Victor Company and Hazeltine Electronic Corporation. CRPL acquired from such companies a non-exclusive licence with the right to grant sublicences.

In its operation CRPL grants to any individual, firm or corporation a licence in respect of its portfolio of patents to manufacure in Canada radio and television receivers and certain electronic apparatus. In conjunction with such licence it makes available to licensees general information relating to the manufacture of such equipment. CRPL sought to distinguish itself from a patent pool, which it defined as a company that acquired patents to be licensed only to the entities comprising the pool.

The evidence estabishes that no one intending to carry

on manufacturing operations in Canada was refused a licence in respect of all patents contained in the portfolio. The licence in respect to the manufacture of rado and television receivers requires the license to pay to CRPL a royalty on the basis of 3½% of the manufacturer's net selling price. Various deductions permitted by the licensor in respect to such items as the cost of tubes, batteries, record changers and cabinets reduces the royalty to 2½% or manufacturer's net selling price.

The portfolio in respect of which CRPL had the right to grant licenses consisted of 5,000 patents, and in the absence of a licence from CRPL it is doubtful if anyone could sell in Canada a radio or television receiver.

CRPL indicated that it does not grant a licence to any importer of radio or television receivers, except in the limited situation where the type or kind of radio or television receiver sought to be imported is not manufactured by any radio or television receiver manufacturer in Canada. It is particularly in respect of the policy of CRPL in precluding importers from bringing into Canada radio and television receivers that the compalint was made to this Commission.

It was stated to be the policy of CRPL to enforce its patent rights against any person who sells in Canada an imported radio or television receiver which infringes any one or more of the patents in its portfolio except in the limited area where permission has been granted to import the apparatus which CRPL agrees is not of a type or kind made in this country. CRPL will tell anyone who submits to it a diagram showing the circuit and layout what patents, if any, would be infringed by the manufacture, use or sale of apparatus constructed according to such diagram.

Appendix C.

Patent Act

(Seal)

Chapter 203.

An Act respecting Patents of Invention.

Short Title.

1. This Act may be cited as the Patent Act, 1935, c. 32, s. 1.

* * * * *

Conditions.

Information relating to patents.

66. (1) The Commissioner may, at any time, by notice in writing addressed to the patentee of any patent specified by him, or to his registered representative in Canada, and to every person who has a registered interest in such patent, require the patentee and such persons in respect of such specified patent to transmit and deliver to the Commissioner within sixty days from the date of such notice, or within such further time as the Commissioner may allow, a return stating

(a) whether the patented invention is being worked on a commercial scale in Canada, and the place where and the name and address of the person by whom the patented invention is being so worked, and

(b) the reasons, if any, why such patented invention is not being worked on a commercial scale in Canada.

Effect of failure to comply.

(2) The failure of the patentee or his registered representative in Canada or that of any such person having a registered interest to comply with the terms of the notice mentioned in subsection (1) shall be deemed to be an admission on the part of the patentee or the person, as the case may be, so failing, that the patented invention is not being worked on a commercial scale in Canada. 1935, c. 32, s. 64.

Abuse of rgihts under patents.

67. (1) The Attorney General of Canada or any person interested may at any time after the expiration of three years from the date of the grant of a patent apply to the Commissioner alleging in the case of that patent that there has been an abuse of the exclusive rights thereunder and asking for relief under this Act.

What amounts to such abuse.

(2) The exclusive rights under a patent shall be deemed to have been abused in any of the following circumstances:

Not working patented invention.

(a) if the patented invention (being one capable of being worked within Canada) is not being worked within Canada on a commercial scale, and no satisfactory reason can be given for such non-working, but if an application is presented to the Commissioner on this ground, and the Commissioner is of the opinion that the time that has elapsed since the grant of the patent has by reason of the nature of the invention or for any other cause been insufficient to enable the invention to be worked within Canada on a commecial scale, the Commissioner

may make an order adjourning the application for such period as will in his opinion be sufficient for that purpose;

Prevention of working by importation.

(b) if the working of the invention within Canada on a commercial scale is being prevented or hindered by the importation from abroard of the patented article by the patentee or persons claiming under him, or by persons directly or indirectly purchasing from him, or by other persons against whom the patentee is not taking or has not taken any proceedings for infringement;

Not meeting demand.

(c) if the demand for the patented article in Canada is not being met to an adequate extent and on reasonable terms;

Prejudice to trade by refusal to licence.

(d) if, by reason of the refusal of the patentee to grant a licence or licences upon reasonable terms, the trade or industry of Canada or the trade of any person or class of persons trading in Canada, or the establishment of any new trade or industry in Canada, is prejudiced, and it is in the public interest that a licence or licences should be granted;

Prejudice by reason of conditions attached.

(e) if any trade or industry in Canada, or any person or class of persons engaged therein, is unfairly prejudiced by the conditions attached by the patentee, whether before or after the passing of this Act, to the purchase, hire, licence, or use of the patented article, or to the using or working of the patented process;

Prejudice in other respects.

(f) if it is shown that the existence of the patent, being a patent for an inventilon relating to a process involving the use of materials not protected by the patent or for an invention relating to a substance produced by such a process, has been utilized by the patentee so as unfairly to prejudice in Canada the manufacture, use or sale of any such materials.

Declaration of basis of grants of patents.

(3) It is declared with relation to every paragraph of subsection (2) that, for the purpose of determining whether there has been any abuse of the exclusive rights under a patent, it shall be taken the patents for new inventions are granted not only to encourage invention but to secure that new inventions shall so far as possible be worked on a commercial scale in Canada without undue delay. 1935, c. 32, s. 65.

Powers of Commissioner in cases of abuse.

68. On being satisfied that a case of abuse of the exclusive rights under a patent has been established, the Commissioner may exercise any of the following powers as he may deem expedient in the circumstances:

Compulsory licences.

(a) he may order the grant to the applicant of a licence on such terms as the Commissioner may think expedient, including a term precluding the licensee from importing into Canada any goods the importation of which, if made by persons other than the patentee or persons claiming under him would be an infringement of the patent, and in

such case the patentee and all licensees for the time being shall be deemed to have mutually covenanted against such importation; a licensee under this paragraph is entitled to call upon the patentee to take proceedings to prevent infringement of the patent, and if the patentee refuses, or neglects to do so within two months after being so called upon, the licensee may institute proceedings for infringement in his own name as though he were the patentee, making the patentee a defendant; a patentee so added as defendant is not liable for any costs unless he enters an appearance and takes part in the proceedings; service on the patentee may be effected by leaving the writ at his address or at the address of his representative for service as appearing in the records of the Patent Office; in settling the terms of a licence under this paragraph the Commissioners shall be guided as far as may be by the following considerations:

(i) he shall, on the one hand, endeavor to secure the widest possible user of the invention in Canada consistent with the patentee deriving a reasonable advantage from his patent rights,

(ii) he shall, on the other hand, endeavor to secure to the patentee the maximum advantage consistent with the invention being worked by the licensee at a reasonable profit in Canada, and

(iii) he shall also endeavor to secure equality of advantage among the several licensees, and for this purpose may, on due cause being shown, reduce the royalties or other payments accruing to the patentee under any

licence previously granted, and in considering the question of equality of advantage, the Commissioner shall take into account any work done or outlay incurred by any previous licensee with a view to testing the commercial value of the invention or to securing the working thereof on a commercial scale in Canada;

Exclusive compulsory licences.

(b) if the Commissioner is satisfied that the invention is not being work on a commercial scale within Canada, and is such that it cannot be so worked without the expenditure of capital for the raising of which it will be necessary to rely on the exclusive rights under the patent, he may, unless the patentee or those claiming under him will undertake to find such capital, order the grant to the applicant, or any other person, or to the applicant and any other person or persons jointly, if able and willing to provide such capital, of an exclusive licence on such terms as the Commissioner may think just, but subject as hereafter in this Act provided;

Order for a licence.

(c) if the Commissioner is satisfied that the exclusive rights have been abused in the circumstances specified in paragraph (f) of subsection (2) of section 67, he may order the grant of licences to the applicant and to such of his customers, and containing such terms, as the Commissioner may think expedient;

Revocation of patent.

(d) if the Commissioner is satisfied that the objects of this section and section 67 cannot be attained by the exercise of any of the foregoing powers, he shall order the patent to be revoked, either forthwith or after such reasonable interval as may be specified in the order, unless in the meantime such conditions as may be prescribed in the order with a view to attaining the objects of this section and section 67 are fulfilled, and the Commissioner may, on reasonable cause shown in any case, by subsequent order extend the interval so specified; but the Commissioner shall make no order for revocation which is at variance with any treaty, convention, arrangement, or engagement with any other country to which Canada is a party;

Refusal of order.

(e) if the Commissioner is of opinion that the objects of this section and section 67 will be best attained by making no order under the above provisions of this section, he may make an order refusing the application and dispose of any question as to costs thereon as he thinks just. 1935, c. 32, s. 66; 1947, c. 23, s. 18.

Terms of order for licence.

69. (1) In settling the terms of any such exclusive licence as is provided in paragraph (b) of section 68, due regard shall be had to the risks undertaken by the licensee in providing the capital and working the invention, but, subject thereto, the licence shall be so framed as

(a) to secure to the patentee the maximum royalty compatible with the licensee working the invention

within Canada on a commercial scale and at a reasonable profit, and

(b) to guarantee to the patentee a minimum yearly sum by way of royalty, if and so far as it is reasonable so to do, having regard to the capital requisite for the proper working of the invention and all the circumstances of the case;

and, in addition to any other powers expressed in the licence or order, the licence and the order granting the licence shall be made revocable at the discretion of the Commissioner if the licensee fails to expend the amount specified in the licence as being the amount that he is able and willing to provide for the purpose of working the invention on a commercial scale within Canada, or if he fails to work the invention within the time specified in the order.

Existing licensees preferred.

(2) In deciding to whom such an exclusive licence is to be granted the Commissioner shall, unless good reason is shown to the contrary, prefer an existing licensee to a person having no registered interest in the patent.

Effect of order for licence.

(3) The order granting an exclusive licence under section 68 operates to take away from the patentee any right that he may have as patentee to work or use the invention and to revoke all existing licences, unless otherwise provided in the order, but on granting an exclusive licence the Commissioner may, if he thinks it fair and equitable, make it a condition that the licensee shall give proper compensation to be fixed by the Commissioner for any money or labour expended by the patentee or any existing licensee in developing or exploiting the invention. 1935, c. 32, s. 67.

Contents of applications.

70. (1) Every application presented to the Commissioner under section 67 or 68 shall set out fully the nature of the applicant's interest and the facts upon which the applicant bases his case and the relief which he seeks; the application shall be accompanied by statutory declarations verifying the applicants interest and the facts set out in the application.

Service on patentee and others interested . Advertising.

(2) The Commissioner shall consider the matters alleged in the application and declarations, and, if satisfied that the applicant has a bona fide interest and that a prima facie case for relief has been made out, he shall direct the applicant to serve copies of the application and declarations upon the patentee or his representative for service and upon any other persons appearing from the records of the Patent Office to be interested in the patent, and the applicant shall advertise the application in the Canada Gazette and the Canadian Patent Office Record. 1935, *c.* 32, s. 68.

Opposition and counter statement.

71. (1) If the patentee or any person is desirous of opposing the granting of any relief under sections 67 to 72, he shall, within such time as may be prescribed or within such extended time as the Commissioner may on application further allow, deliver to the Commissioner a counter statement verified by a statutory declaration fully setting out the grounds on which the application is to be opposed.

Attendance for cross-examination.

(2) The Commissioner shall consider the counter statement and declarations in support thereof and may thereupon dismiss the application if satisfied that the allegations

in the application have been adequately answered, unless any of the parties demands a hearing or unless the Commissioner himself appoints a hearing; in any case the Commissioner may require the attendance before him of any of the declarants to be cross-examined or further examined upon matters relevant to the issues raised in the application and counter statement, and he may, subject to due precautions against disclosure of information to rivals in trade, require the production before him of books and documents relating to the matter in issue.

Reference to Exchequer Court.

(3) In any case where the Commissioner does not dismiss an application as hereinbefore provided, and

(a) if the parties interested consent, or

(b) if the proceedings require any prolonged examination of documents or any scientific or local investigation that cannot in the opinion of the Commissioner conveniently be made before him,

the Commissioner with the approval in writing of the Minister may order the whole proceedings or any issue of fact arising thereunder to be referred to the Exchequer Court, which has jurisdiction in the premises, and where the whole proceedings are so referred, the judgment, decision or order of said Court is final; and where a question or issue of fact is so referred, the said Court shall report its findings to the Commissioner. 1935, c. 32, s. 69.

Appendix D.

Extracts from the Convention of Paris as revised. (Matter deleted by Lisbon Conference enclosed in brackets; matter added by Lisbon Conference in italic.)

* * * * * * *

Article 5.

A.—(1) The importation by the patentee into the country where the patent has been granted of articles manufactured in any of the countries of the Union shall not entail revocation of the patent.

(2) [Nevertheless,] Each country of the Union shall have the right to take [the necessary] legislative measures *providing for the granting of compulsory licences* to prevent the abuses which might result from the exercise of the exclusive rights conferred by the patent, for example failure to work.

(3) [These measures shall not provide for revocation of the patent unless the grant of compulsory licence is insufficient to prevent such abuses.]

Revocation of the patent shall not be provided for except in cases where the granting of compulsory licenses would not have been sufficient to prevent such abuses. No proceeding for the cancellation or revocation of a patent may be instituted before the expiration of two years from the granting of the first compulsory licence.

(4) [In any case, an application for the grant of a compulsory licence may not be made before the expiration of three years from the date of the grant of the patent, and this licence may be granted only if the patentee fails to justify himself by legitimate reasons. No proceedings for the cancellation or revocation of a patent may be instituted

before the expiration of two years from the granting of the first compulsory licence.]

An application for a compulsory licence may not be made on the ground of failure to work or insufficient working before the expiration of a period of four years from the date of filing of the patent application or three years from the date of the grant of the patent, whichever period last expires; it shall be refused if the patentee justifies his inaction by legitimate reasons. Such a compulsory licence shall be non-exclusive and shall not be transferable, even in the form of the grant of a sub-licence, except with that part of the enterprise or good-will using such licence.

PLAINTIFF'S EXHIBIT NO. 50-A.

Royal Commission on Patents, Copyright and Industrial Designs.

Report on Patents of Invention.

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Division I—Introduction.

Section 1. Terms of Reference.

By commission, dated June 10, 1954, we were appointed Royal Commissioners to inquire as to whether Federal legislation relating in any way to patents of invention, industrial designs, copyright and trade marks affords reasonable incentive to invention and research, to the development of literary and artistic talents, to creativeness, and to making available to the Canadian public scientific, technical, literary and artistic creations and other applications, adaptations and uses, in a manner and on terms adequately safeguarding the paramount public interest, the whole in the light of present-day economic conditions, scientific, technical and industrial developments, trade practices and any other relevant factors or circumstances, including practices under or related to the said legislation and any relevant international convention to which Canada is a party.

We have submitted our report on copyright and our report on industrial designs, dated August 1, 1957 and

June 1, 1958 respectively and now beg to submit our report on patents. Pressure of other duties and the unexpected dimensions of the work have made it necessary for us to request to be relieved from the task of inquiring into and reporting on the law in relation to trade marks, a request to which your Excellency has been pleased to accede, and an Order in Council has been passed, dated October 16, 1959, amending our commission so as to delete the reference to trade marks. This, then, is the last of the reports which we are submitting pursuant to the commission mentioned above.

As stated in our report on copyright, on or about August 20, 1954, we sent a questionnaire pertaining to patents, copyright and industrial designs to a large number of corporations, firms associations and individuals. This number included or was intended to include all those in Canada who would be specially interested in any of the subjects of the inquiry. The part of the questionnaire relating to patents is attached as Appendix A. In the latter part of October, 1954, we inserted a notice in the Canada Gazette and in newspapers published in all the provinces of Canada, of public hearings stating the time and place when and where these hearings would be held and inviting those desiring to make representations at the hearings to communicate with the Secretary. The public hearings received considerable notice in the press and on the radio and we think that every reasonable opportunity has been given to those desiring to make representations to do so. An indication of those who have made representations to the Commission either in public or by written submissions will be found in Appendix B.

Apart from such representations we have had throughout the course of the inquiry the benefit of private discussions with many persons who have specialized in or have special knowledge of patent matters. We have also had

continuously before us patent legislation of other countries and reports of committees on which patent legislation is based, and in addition two of our number (when there were three members of the Commission) visited London and The Hague and one visited Washington, Paris and Berne, where they discussed problems relating to patents with those who had had, either as government officials or otherwise, experience with those problems.

Of the committee reports examined, we shall be referring to the Report of the Swan Committee. This was a committee appointed by the President of the Board of Trade of the United Kingdom in April, 1944, to consider and report whether any, and if so, what changes were desirable in the Patents and Designs Acts and in the practice of the patent office and the courts in relation to matters arising therefrom. The chairman of the committee was Sir Kenneth R. Swan, Q. C. The committee made an interim report in March, 1945, a second interim report in February, 1946, and its final report in July, 1947. Following these reports the Patents Act, 1949 (United Kingdom) was passed enacting many of the recommendations of the Swan Committee.

We may add that the literature on the subject of patents and on the problems connected with them is most voluminous. A subcommittee of the Committee on the Judiciary, United States Senate, has since 1955 been reviewing the statutes of the United States relating to patents, trade marks, and copyright. This subcommittee was created by a Senate resolution in 1955 and has been continued by subsequent Senate resolutions year after year. As the chairman of the subcommittee is Senator O'Mahoney we shall refer to it as the O'Mahoney Subcommittee. The sub-
a Senate resolution in 1955 and has been continued by subcommittee has been publishing a series of special studies on patents and reference to some of these will be made

in this report. Study No. 14, the foreword of which is dated June 27, 1958, is a bibliography compiled for the subcommittee by Julius W. Allen of the Legislative Reference service, Library of Congress. This is entitled "Economic Aspects of Patents and the American Patent System: A Bibliography". It consists of a list and short description of no fewer than 446 publications. Needless to say, we have not had time to examine all of these or more than a small part of the other literature on the subject. We nevertheless feel that our recommendations are capable of practical application and would, if adopted, improve our existing patent system.

Section 2. History and Character of our Present Legislation:

Canadian legislative provisions relating to patents are, with a few exceptions, to be found in the Patent Act which in its present form was enacted in 1935—S. C. 1935, c. 32. The 1935 statute, amended from time to time, was carried into the Revised Statutes of 1952 as Chapter 203, and has since been amended in minor particulars on two occasions by S. C. 1953-54, c. 19 and by S. C. 1953-54, c. 40, s. 15. The Act as amended to date is appended as Appendix C.

Probably the first patent law (in the sense of a general promise of exclusive rights to inventors) was enacted in 1474 by the Republic of Venice. (But see article by E. Wyndham Hulme in vol. XII of the Law Quarterly Review, 1896, pp. 141-154 which refers to earlier grants of franchises in England which may have been franchises of exclusive rights to inventors.) But for all practical purposes a person desiring to acquaint himself with the principles of Canadian Patent Law need go no further back than 1624 when the Parliament of James I passed the Statute of Monopolies 21 Jac. I, c. 3. This Statute forbids the granting by the Crown of exclusive rights to trade with

the exception of patent monopolies to the "true and first inventor" of a new manufacture. As this Statute made it clear that the true and first inventors of any manner of new manufactures within the realm could be granted the exclusive privilege of working or making them, the statute has been called the "Magna Carta of the rights of inventors".

Division IV—Relationship of Our Proposals to the Present Canadian Act.

Section 1. Some Features of Present Act To Be Retained.

As will be seen, we are recommending the retention, with or without some modifications, in any new legislation, of many features of our present Act. Among these may be mentioned the provisions for the general organizational structure of the Patent Office and its staff, that is, a Commissioner, an Assistant Commissioner and Examiners, power in the Governor in Council on the recommendation of the Minister to make rules and regulations, the issue of patents by the Commissioner under seal and, generally speaking, the contents of patents, a register for patent attorneys or agents, registration in the Patent Office of assignment, etc., the right of the Government of Canada to use patented inventions, paying reasonable compensation, the free use of patented inventions on foreign ships, etc., annual reports by the Commissioner, requirements as to the contents of (complete) specifications, compulsory licensing when there is abuse of patent rights and in part, the definition of invention.

The definition of invention requires at this point some observations.

The definitions to be found in the Patents Act of the United Kingdom, Australia and New Zealand are the following:

United Kingdom.

"Invention" means any manner of new manufacture the subject of letters patent and grant of privilege within section six of the Statute of Monopolies and any new method or process of testing applicable to the improvement or control of manufacture, and includes an alleged invention.

Australia.

"Invention" means any manner of new manufacture the subject of letters patent and grant of privilege within section six of the Statute of Monopolies, and includes an alleged invention.

New Zealand.

"Invention" means any manner of new manufacture the subject of letters patent and grant of privilege within section six of the Statute of Monopolies and any new method or process of testing applicable to the improvement or control of manufacture, and includes an alleged invention.

The key words in each of these definitions are the words "any manner of new manufacture". It is apparent from the cases that "manner" means "kind" not "method" but what does "manufacture" mean? It has been authoritatively construed as applying not only to things made but to the practice of making: Fox on Patents, 3rd ed. p. 52. Accordingly it includes not only a product but a process. Fox in the work cited at p. 56 says, "It may, therefore, be accepted in principle that the requirements with regard to subject matter are co-extensive under the British and Canadian statutes, and that the jurisprudence established on this point by the Courts of England and Scotland is authoritative in this country". The learned author was referring to the jurisprudence under the definition before the words "and any new method or process of testing applicable to the improvement or control of manu-

facture" were inserted but we consider that a method or process of testing applicable to the improvement or control of manufacture would come within the word "process" used in the present Canadian definition. At the same time it is not precisely correct to say that the Canadian definition is identical in legal effect with the United Kingdom and New Zealand definitions quoted above. Many, but not all, of the judicial decisions in the United Kingdom based on the definition in the United Kingdom Act are applicable to the Canadian definition.

Our present definition is more nearly identical with that contained in the United States and South African statutes.

It is provided in the United States Code, Title 35—Patents, section 101 that:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The definition in the South African Act of 1952 is as follows:

> "Invention" means, subject to the provisions of this Act, any new and useful art (whether producing a physical effect or not), process, machine, manufacture or composition of matter which is not obvious, or any new and useful improvement thereof which is not obvious, capable of being used or applied in trade or industry, and includes any distinct and new variety of plant, other than a tuber-propagated plant, which has been reproduced asexually, and any alleged invention.

It will be noted that the United States definition does not include the word "art", but otherwise is the same as the Canadian. Fox in the work cited at pp. 47-49 cites several cases in which some courts have detected subtle distinctions between arts and processes but which disclose no

reason, in our view, which indicates the desirability of omitting the word "art" from the Canadian definition of invention.

The South African definition contains the words "which is not obvious". We think that similar words should be included in our definition of invention so that in part it should read as follows:

> "Invention" means any new and useful art, process, machine, manufacture or composition of matter (which is not obvious), or any new and useful improvement (which is not obvious) in any art, process, machine, manufacture or composition of matter.

The word "obvious" has a somewhat technical meaning in the law of patents as pointed out by Rinfret, J. as he then was in a judgment concurred in by Duff, C. J. in *Crosley Radio Corpn.* v. *Canadian General Electric Co.* Ltd. (1936), S. C. R. 551. Something which is new and useful is not an invention unless it was the result of an inventive step. If there was no inventive step it is said to be obvious.

The following may be quoted from the judgment of Rinfret, J. at p. 556:

> "We would suggest that, in England, the appearance, in later years, of the word 'obvious' in judgments dealing with patent matters, probably results from the fact that, under section 25 (subs. f) of the English Patents and Designs Act, a patent may be revoked upon the ground 'that the invention is *obvious* and does not involve any inventive step having regard to what was known or used prior to the date of the patent.' But although, perhaps, judgments under Canadian patent law may not have denied patentability to certain improvements upon the express ground that the advance over the prior art should be taken to have been obvious to the persons skilled in the art, the jurisprudence, both in the Canadian courts and in the Judicial Committee of the Privy Council, is not

wanting in pronouncements conveying the same idea. It has long been laid down in our courts that, in order validity to support a patent, it was, of course, necessary that the art, or the improvement thereon, should be new, that it must be useful and that it must not have been anticipated by prior knowledge or prior use by others within the meaning of sec. 7 of the Patent Act, in force at the time of the issuance of the patent in suit; but that something additional was also required. It was essential that there should be invention and that one did not hold a valid subject-matter of a patent unless he showed the exercise of the inventive faculties (See: Halsbury's Laws of England, vbis. Patents and Inventions, no. 288); and that is to say, in the words of Lord Watson (*Thomson* v. *American Braided Wire Company* (1889), 6 R. P. C. 518 (H. L.)), 'a degree of ingenuity . . . which must have been the result of thought and experiment'."

Many of the decisions dealing with obviousness were referred to in the judgment of Dumoulin, J. in *Visirecords of Canada Limited* v. *Malton et al.* (1958) Ex. C. R. 116.

While the absence of the word "obvious" from our definition or its equivalent does not seem to have presented any difficulty to the courts in the past, which have always regarded the exercise of the inventive faculty as a prerequisite of an invention, we propose to introduce the word "obvious" into other provisions of legislation which we recommend, and we think it desirable to introduce it into the definition as part of the definition.

We are also recommending that "process" a word used in the definition of invention be defined as follows:

> "Process" means process or method and includes a new use of a known process, machine, manufacture or composition of matter.

This provision is now part of the definition section in the Patent Act of the United States (see section 100 (b)) and is desirable for the elimination of uncertainty. It has

already been decided by the Supreme Court of Canada in *Commissioner of Patents* v. *Ciba Ltd.* (1959), S.C.R. 378 that a new use of an old process is patentable when the result is new. It would be illogical in the light of this decision to deny protection to the new use of an old product when the result is new as would appear to follow from *Rohm & Haas Company* v. *Commissioner of Patents* (1959), Ex. C. R. 153. Where there is a new use of an old process the applicant would normally be entitled to protection of the product flowing from the new use of the old process, while in the case of the new use of an old product, often a new product would not result on which protection could be obtained. Protection in the latter case can, therefore, be more important than in the former and is, we think, at least equally to be desired.

Section 2. Some Features of Present Act to Be Dropped.

As will be seen, we are recommending omission of certain features of the present Act from future legislation. Some of these are as follows: the requirement of section 28 that for an invention to be patentable it must not have been known or used by any person other than the inventor, before he invented it, a fundamental alteration in the Act which is fully discussed above in Division I, section 5; the provisions of section 45 regarding conflicting applications which are also discussed in Division I, section 5; and the provision for caveats which will have no purpose in the system we recommend.

In the parts of this report which immediately follow we recommended the enactment of various sections which taken together should form a complete Act based upon the principles which we have outlined in the report up to this point. We would have much preferred to give the substance of

every provision we desire to recommend with no drafting, even tentative, but we found this to be impracticable. There are so many cross-references between sections, so many situations where everything depends on wording, that we have drafted a proposed Act section by section, fully realizing that perhaps every single section should be redrafted in accordance with the standards of parliamentary draftsmanship and that rearrangements may be necessary both of and in the sections. Our proposed sections follow with comments where these are considered necessary. We have divided the proposed Act into "Parts" which should not be confused with the "Divisions" into which we have divided our report. Throughout this report we have used such words as "we" and "our" sometimes as applying to Canada and sometimes as applying to this Commission, but we think the sense is always clear.

* * * * *

Division XII—Compulsory Licences, Misuse of Patents, Restraint-of-Trade Abuses.

Part VIII. Compulsory Licenses, etc.

Conditions.

1. (1) The Commissioner shall, on the request of any person who pays the prescribed fee, by notice in writing addressed to the patentee of any patent specified in the request, or to his registered representative in Canada, and to every registered transferee of rights in respect of such patent (and to every person who has a registered interest in such patent if granted on an application filed before the coming into force of this Act), require the patentee and such persons, in respect of such patent, to transmit or deliver to the Commissioner within sixty days from the

date of such notice, or within such further time as the Commissioner may allow, a return stating:

(a) whether the patented invention is being commercially worked in Canada, and the place where and the name and address of the person by whom the patented invention is being so worked; and

(b) the reasons, if any, why such patented invention is not being commercially worked in Canada.

(2) The failure of the patentee or such representative in Canada or that of any such registered transferee to comply with the terms of the notice mentioned in the next preceding subsection, shall be deemed to be an admission on the part of the patentee or such person, as the case may be, so failing, that the patented invention is not being commercially worked in Canada.

2. (1) Subject to the provisions of section 5 of this Part, any person interested may, at any time after the grant of a patent, apply to the Patent Tribunal upon any one or more of the grounds specified in the next following subsection for an order for the grant of a licence under the patent.

(2) The grounds upon which application may be made for an order under this section are as follows, that is to say:

(a) that the patented invention, being capable of being commercially worked in Canada, is not being commercially worked therein or is not being so worked to the fullest extent that is reasonably practicable;

(b) that a demand for the patented article in Canada is being met to a substantial extent by importation;

(c) that a demand for the patented article in Canada is not being met on reasonable terms;

(d) that use has been made of the exclusive rights and privileges conferred by the patent, or the patent

and one or more other patents, in such a way that the Exchequer Court could on an information exhibited by the Attorney General of Canada by virtue of section 30 of the Combines Investigation Act, make an order directing the grant of licences under any such patent;

(e) that the commercial working of the invention in Canada is being prevented or hindered by the importation of the patented article;

(f) that by reason of the refusal of the patentee to grant a license or licenses on reasonable terms

(i) a market for the export of the patented article manufactured in Canada is not being supplied;

(ii) the working or efficient working in Canada of any other patented invention which makes a substantial contribution to the art is prevented or hindered; or

(iii) the establishment or development of commercial or industrial activities in Canada is unfairly prejudiced;

(g) that by reason of any condition imposed by the patentee—

(i) upon the grant of a licence or licenses under the patent; or

(ii) upon the purchase, hire or use of the patented article or process, the manufacture, use or sale by any person of any article not protected by the patent is unfairly prejudiced; or the establishment or development of commercial or industrial activities in Canada is unfairly prejudiced.

(3) Subject as hereinafter provided the Patent Tribunal may, if satisfied that any of the grounds aforesaid

are established, make an order for the grant of a licence under the patent, which order may require the licence to be granted upon such terms as the Patent Tribunal deems advisable, provided that

(a) where the application is made on the ground that the patented invention is not being commercially worked in Canada or is not being worked to the fullest extent that is reasonably practicable, and it appears to the Patent Tribunal that the time which has elapsed since the grant of the patent has for any reason been insufficient to enable it to be so worked, the Patent Tribunal may by order adjourn the application for such period as will in its opinion give sufficient time for the invention to be so worked;

(b) any licence granted under this section on the ground that a market for the export of the patented article is not being supplied shall contain such provisions as appear to the Patent Tribunal to be expedient for restricting the countries to which the patented article may be exported;

(c) no order shall be made under this section in respect of a patent on the ground that the working or efficient working in Canada of another patented invention is prevented or hindered unless the Patent Tribunal is satisfied that the patentee in respect of that other invention is able and willing to grant to the patentee and his licensee a licence in respect of that other invention on reasonable terms.

(4) No licence granted under the last foregoing subsection shall be an exclusive licence nor shall it be transferable even in the form of the grant of a sublicence.

(5) An application under this section may be made by

any person notwithstanding that he is already the holder of a licence under the patent; and no person shall be estopped from alleging any of the matters specified in subsection (2) of this section by reason of any admission made by him whether in such a licence or otherwise, or by reason of his having accepted such a licence.

(6) In this section the expression "patented article" includes any article made by a patented process.

3. (1) Where the Patent Tribunal is satisfied, on application made under the last foregoing section, that the manufacture, use or sale by any person of materials not protected by the patent is unfairly prejudiced by reason of conditions imposed by the patentee upon the grant of a licence or licences under the patent, or upon the purchase, hire or use of the patented article or process, it may, subject to the provisions of that section, order the grant of licences under the patent to such customers of the applicant as it deems advisable as well as to the applicant.

(2) Where an application under the last foregoing section is made by a person being the holder of a licence under the patent, the Patent Tribunal may, if it makes an order for the grant of a licence to the applicant, order the existing licence to be cancelled or may, if it deems advisable, instead of making an order for the grant of a licence to the applicant, order the existing licence to be amended.

(3) Where on an application under the last foregoing section the Patent Tribunal orders the grant of a licence, it may direct that the licence shall operate to cancel or amend any existing licence in respect of the patented invention.

The constitutionality of subsection (5) of section 2 and of subsections (2) and (3) of section 3 should probably be given some consideration. The basis for considering them within the powers of Parliament is that they relate to patents, in that subsection (12) of section 1 of Part V (the

subsection providing for the terms of the grant) makes the grant of a patent conditional, and what the subsections under consideration do is to impose conditions. However, it is arguable that these subsections are really provisions relating to property and civil rights in a Province. We merely bring the matter to the attention of the law officers of the Crown.

4. (1) The powers of the Patent Tribunal upon an application under section 2 of this Part shall be exercised with a view to securing the following general purposes, that is to say—

(a) that patented inventions which can be commercially worked in Canada and which should in the public interest be so worked shall be worked therein without undue delay and to the fullest extent that is reasonably practicable;

(b) that the patentee shall receive reasonable remuneration;

(c) that the interests of any person for the time being working or developing an invention in Canada under the protection of a patent shall not be unfairly prejudiced;

(2) Subject to the foregoing subsection, the Patent Tribunal shall, in determining whether to make an order in pursuance of any such application, take account of the following matters, that is to say—

(a) the nature of the invention, the time which has elapsed since the grant of the patent and the measures already taken by the patentee or any licensee to make full use of the invention;

(b) the ability of any person to whom a licence would be granted under the order to work the invention to the public advantage; and

(c) the risks to be undertaken by that pesron in providing capital and working the invention if the application is granted;

but shall not be required to take account of matters subsequent to the making of the application.

5. No application for an order for the grant of a licence under section 2 of this Part shall be made on any of the grounds set out in subsection (2) (a), (2) (b), (2) (e) or (2) (f) (i) of section 2 before the expiration of a period of four years from the date of the filing of the complete specification of that application for the patent or three years from the date of the grant of the patent whichever of such periods is the last to expire.

Provisions for compulsory licensing for patent abuses so-called have been in Canadian legislation since 1923. Before that the remedy was revocation. Information obtained by us from the Commissioner of Patents on May 19, 1959 is that the records of the Patent Office do not show any application prior to August, 1935 and that whether there were applications before that is unknown in the Office as there are no indexes or files prior to 1935 showing applications for licences.

Between August, 1935 and May, 1959 there were 31 applications under section 67 of our present Act. Disposition of these applications was as follows:

Licences granted	5
Applications refused	6
Applications abandoned	12
Applications withdrawn	4
Agreements between parties	2
Applications pending	2
Total number of applications	31

Few matters connected with the law of patents have been more extensively discussed than compulsory working of patented inventions and compulsory licences under patents.

The provisions of sections 67 to 73 of our present Act deal with the powers of the Commissioner to order the grant of compulsory licences in cases where there has been what is referred to in section 67(1) as "abuse of the exclusive rights" under a patent. Section 67(2) sets out six classes of circumstances in which the exclusive rights under a patent shall be deemed to be abused. The first class of abuse, that in 67(2)(a), may be described as failure without satisfactory reason to work in Canada. It would appear that failure to work may be due to inertia or what is sometimes called "suppression" of the invention or by the supply of the Canadian market by importation. (No evidence of "suppression" was adduced.) The second class of abuse, that in section 67(2)(b), is the prevention or hindrance of working in Canada by importation. These two classes are the lineal descendants of a long line of ancestor provisions in Canadian, United Kingdom and other statutes applying or attempting to apply the principle of compulsory working. The usual sanction of such provisions is revocation of the patent—and indeed section 68(d) provides for revocation if the Commissioner is satisfied that the objects of sections 67 and 68 cannot be attained by the grant of compulsory licences. But the right of Canada, and indeed of all countries which are parties to The International Convention, to impose revocation as a sanction is now restricted by Article 5 of that Convention the relevant provisions of which are as follows:

> "A.—(1) The importation by the patentee into the country where the patent has been granted of articles manufactured in any of the countries of the Union shall not entail revocation of the patent."

Canadian Radio Patents Limited.

Public representations were made to the Commission by S. G. Waters Limited, a company engaged in the distribution of various kinds of household electrical appliances, that the structure and operation of Canadian Radio Patents Limited should be examined to determine whether that Company offended the patent law insofar as it now prevails or ought to prevail in Canada, more particularly in reference to the utilization of a portfolio of patents to preclude the importation of certain articles into Canada. Similar representations were made by others.

Canadian Radio Patents Limited (hereinafter called CRPL) was incorporated in 1926 for the purpose of acting as a patent licensing agency. At the time of the presentation of its brief to this Commission it acted as the central patent licensing agency in the administration of patent rights in the radio, television and general electronic fields in respect of patents owned by its then five shareholders:

Canadian General Electric Company
Canadian Westinghouse Company
Northern Electric Company
Canadian Marconi Company, and
Canadian Radio Manufacturing Company.

It also acted as licensing agent in Canada for RCA Victor Company and Hazeltine Electronics Corporation. CRPL acquired from such companies a non-exclusive licence with the right to grant sublicences.

In its operation CRPL grants to any individual, firm or corporation a license in respect of its portfolio of patents to manufacture in Canada radio and television receivers and certain electronic apparatus. In conjunction with such licence it makes available to licensees general information relating to the manufacture of such equipment. CRPL

sought to distinguish itself from a patent pool, which it defined as a company that acquired patents to be licensed only to the entities comprising the pool.

The evidence establishes that no one intending to carry on manufacturing operations in Canada was refused a licence in respect of all patents contained in the portfolio. The licence in respect to the manufacture of radio and television receivers require the licensee to pay to CRPL a royalty on the basis of 3½% of the manufacturer's net selling price. Various deductions permitted by the licensor in respect of such items as the cost of tubes, batteries, record changers and cabinets reduces the royalty to 2½% of manufacturer's net selling price.

The portfolio in respect of which CRPL had the right to grant licences consisted of 5,000 patents, and in the absence of a licence from CRPL it is doubtful if anyone could sell in Canada a radio or television receiver.

CRPL indicated that it does not grant a licence to any importer of radio or television receivers, except in the limited situation where the type or kind of radio or television receiver sought to be imported is not manufactured by any radio or television receiver manufacturer in Canada. It is particularly in respect of the policy of CRPL in precluding importers from bringing into Canada radio and television receivers that the complaint was made to this Commission.

It was stated to be the policy of CRPL to enforce its patent rights against any person who sells in Canada an imported radio or television receiver which infringes any one or more of the patents in its portfolio except in the limited area where permission has been granted to import the apparatus which CRPL agrees is not of a type or kind made in this country. CRPL will tell anyone who submits to it a diagram showing the circuit and layout what patents, if any, would be infringed by the manufacture,

use or sale of apparatus constructed according to such diagram.

CRPL has granted to the Department of Defence Production a licence whereby an annual royalty is payable covering all electronic products under the defence program.

CRPL expressed concern about the compulsory licensing provisions of the Canadian Patent Act in the event that it should grant a licence to any person to import in circumstances where any manufacturing was carried out in Canada under a patent included in the portfolio which it administered. This concern did not relate to the grant of a non-exclusive compulsory licence by the Commissioner of Patents on the payment of a reasonable royalty. CRPL was itself prepared to grant a licence of such a nature.

The concern manifested itself in relation to the possibility that an exclusive licence would be granted on the operation of sections 67(2), (*b*) and 68, (*b*), of the Act. The grant of an exclusive licence to any Canadian manufacturer would operate contrary to the purpose of the licensing agency in making patents available to any manufacturer in Canada. It is the intention of the licensing agency in fulfilling its purpose to avoid the delays and expense incident to patent litigation in the radio receiver and television receiver manufacturing fields. CRPL stated that the royalties would be used by it through its shareholders for the purpose of research or by CRPL directly in the purchase of other inventions to be licensed amongst its Canadian licensees. An exclusive licence would, therefore, be contrary to a fundamental purpose of its existence.

To avoid the risk of such a licence CRPL sought to justify its refusal to grant a licence to import in circumstances other than where a type of apparatus covered by a patent in its portfolio was not made in Canada. The recommendations which we propose will eliminate this risk. CRPL and any holder of a portfolio of patents will have

the right but not the obligation to grant a licence to import where the circumstances warrant, without fear of an exclusive licence. The proposal made by the delegates to the International Convention at Lisbon that article 5 of the Convention be amended to provide that a compulsory licence be granted only on a non-exclusive basis is a proposal that we elsewhere in this report recommend be made part of our law.

A second concern expressed by CRPL in its evidence before us related to the possibility of an order of revocation of one or more of the patents in its portfolio following a compulsory licence application. Such a possibility flows from section 68, subparagraph (*d*) of the Patent Act as it now exists. We do not believe that it is likely that the Commissioner of Patents would revoke a patent where the abuse was based on the fact that a licence had been granted to import. If the abuse is importation on the payment of a royalty, an abuse of this nature would not be remedied by revoking the patent and permitting importation by anyone and without royalty obligation. Such a course of action would not cure the mischief.

CRPL as it is now organized and as it now operates does not appear to us to be illegal. It is not illegal to acquire a portfolio of patents either by way of ownership of the patents or by way of acquiring a right to grant licences. The mere control of a sector of industry through the accumulation of patents is not in itself illegal.

The complaint against CRPL is that it refused to grant a licence to import. In refusing to grant such a licence CRPL was not going beyond its legal right when manufacture was taking place in Canada pursuant to licences granted by it in this country at reasonable royalty rates.

However, there is inherent in the accumulation of patents in respect of a sector of industry the possibility that the portfolio will be used to the public prejudice. When so

used an abuse does exist in respect to which legislation must prescribe effective sanctions if the pool or licensing agency by monopolization through acquisition of patents seeks to assert the patents beyond the scope of the patent monopoly or for purposes in respect of which the patent is not adapted to be used or to assert the monopoly in such a way as to constitute a restraint-of-trade abuse of patents.

Sanctions which now exist will be found in the provisions of Sections 2 and 32 of the Combines Investigation Act and Section 411 of the Criminal Code. Section 30 of the Combines Investigation Act provides a civil remedy at the instance of the Attorney General. The nature of these remedies, which are dealt with elsewhere in this report, is not, in our opinion, sufficiently all-inclusive. We believe that where a pool or licensing agency in control of a portfolio, in practice, operates to the detriment of the public that a civil remedy ought to be available in the hands of an individual affected thereby. The remedy could take the form of a compulsory license with a reasonable royalty, a dedication of the patent, a royalty free compulsory license or, in lieu of the above relief in compulsory license proceedings, relief of a similar nature by way of defense in a patent infringement action.

The evidence before the Commission did not indicate that the likelihood of the abuse by misuse of a patent portfolio was of such a nature as to justify the recommendation at this time of a sanction in addition to those now available other than a compulsory licence at the instance of any person interested in the circumstances defined by section 30 of the Combines Investigation Act.

The result flowing from the recommendation of the Commission is that a company holding a patent portfolio will have the right to grant a licence to import in a proper case. The mere granting of a license to import will not in itself constitute an abuse that would give rise to the kind

of compulsory license in respect of which CRPL expressed concern. Such a license could be granted. On the other hand, a company holding a patent portfolio is not obliged to grant a license to import where the patents are being commercially worked in Canada under conditions that do not constitute a misuse of patents.

PLAINTIFF'S EXHIBIT No. 51.

Plaintiff's Interrogatory No. 8 to Defendant and Defendant's Answer

"8. With respect to the allegation the Plaintiff has participated in a combination and conspiracy in restraint of trade, set forth in Paragraph 13 of Defendant's Answer, specify and identify:

(a) Any documents and any correspondence on which Defendant will rely at the trial in support of such allegations and the location and custody thereof.

(b) Any acts or omissions of Plaintiff and each of its alleged co-conspirators, other than becoming a party to the agreements referred to in subparagraph (a) of this Paragraph 8, on which Defendant will rely at the trial in support of such allegations, and specify the time, place and persons present when each of such acts occurred and the substance of what was done and said.

(c) The time and place at which and the other circumstances under which the alleged combination conspiracy in restraint of trade took form.

(d) The time and place at which and the other circumstances under which Plaintiff was inducted into the alleged combination and conspiracy in restraint of trade.

"Answer: Answering Interrogatory No. (7[8]), defendant avers that it cannot identify the documents and other evidence on which it will rely at the trial in support of the allegations of Paragraphs 12 and 13 of its answer until it has conducted pre-trial discovery proceedings herein, pursuant to the Federal Rules of Civil Procedure, and has thereby obtained from plaintiff and others access to the relevant documents and other evidence bearing on the issues. In the course of such discovery proceedings the details of plaintiff's patent misuse and conspiracy will, defendant believes, be fully disclosed; meanwhile, defendant is without knowledge of the specific details of such misuse and conspiracy."

PLAINTIFF'S EXHIBIT No. 52.

Hazeltine Research, Inc.
5445 West Diversey Avenue
Chicago 39, Illinois
National 2-1582.

December 9, 1959.

The Magnavox Company of Tennessee
2131 Bueter Road
Fort Wayne 4, Indiana.

Gentlemen:

This letter is written in connection with the Hazeltine License Agreement in the home broadcast receiver field dated as of October 1, 1959, and executed concurrently herewith, and is to record certain further understandings between the parties as follows:

1. From the field of said License Agreement in which

licenses are granted there are deleted all sound radio receiving equipment (Article II, Sections 2a, 2c, and 2e) and the color television receiver apparatus (Article II, Sections 2b, 2d, and 2f).

2. The licenses granted under Article II of said License Agreement with respect to monochrome television receiver apparatus are restricted to United States Letters Patent Nos. 2,416,424-Wilson and 2,547,648-Loughren.

3. The several percentage rates of royalty recited in Article III, Section 1 are reduced by eighty per cent. (80%) and the annual lump sum payment specified in Article III, Section 6 is reduced from Fifty Thousand Dollars ($50,000) to Forty Thousand Dollars ($40,000).

This letter is written in duplicate and, upon acceptance by your company, shall be taken together with and considered as a part of aforesaid License Agreement.

Very truly yours,

Hazeltine Research, Inc.
By W. O. Swinyard,
Vice President.

(Corporate Seal)

Attest:
(Illegible).
Assistant Secretary.

Accepted:

The Magnavox Company of Tennessee,
By J. S. Sturgeon,
Vice President and Treasurer.
(Title)

(Corporate Seal)

Attest:
Gerard Ungaro,
Secretary.

PLAINTIFF'S EXHIBIT NO. 53.

The Magnavox Company
Fort Wayne 4, Indiana.

December 16, 1959

Mr. Laurence B. Dodds
Hazeltine Research, Inc.
5445 West Diversey Avenue
Chicago 39, Illinois

Dear Mr. Dodds:

This letter is to confirm our recent telephone discussion and to alter to the extent indicated below the royalty agreement that is currently in effect between our two companies.

I explained to you that at the present time we sell our entire output to the parent company which functioning as a distributor sells directly to retailers. The provisions of Article III, Section 2 are such that we would be required to pay royalties based upon the net selling price of the parent company to the retailer before deducting cash discounts, freight or advertising allowances or other similar deductions. Inasmuch as the industry generally sells almost exclusively to independent distributors who in turn sell to retailers, it is manifestly unfair for us to be required to pay a royalty based upon our company's selling price to retailers whereas other licensees are paying on their selling prices to distributors.

A study of competitors' prices to distributors made by us some time ago established that the application of a factor of 83.7% to our parent company's actual selling price to dealers would yield prices approximately equivalent to those at which our competitors sell to distributors.

In view of the above it is agreed that the royalties pay-

able under our license agreement with you will be paid on the actual net selling prices realized by our parent company on sales to dealers before cash discount, freight or advertising allowances, or other similar deductions reduced, however, by a factor of 16.3%. The resulting net selling price will, of course, be reduced by any other deductions allowed under the terms of our license agreement.

It is further agreed that either party may request that the 83.7% be altered in order to agree with any changes which may occur in such percentage relationship in our industry.

If you are in agreement with the foregoing we will appreciate your confirming our understanding by executing the attached carbon copy of this letter and returning it to us.

Very truly yours,

The Magnavox Company of Tennessee,
J. S. Sturgeon,
Vice President and Treasurer.

JSS:lf
enc.

Confirmed by
Hazeltine Research, Inc.
By W. O. Swinyard,
Vice Pres.

cc: Mr. Gerard M. Ungaro
Mr. Robert J. Savage

PLAINTIFF'S EXHIBIT NO. 54.

Hazeltine Research, Inc.
5445 West Diversey Avenue
Chicago 39, Illinois
National 2-1582

June 27, 1960

The Magnavox Company of Tennessee
131 Bueter Road
Fort Wayne 4, Indiana

Gentlemen:

This letter is written in connection with the Hazeltine License Agreement in the home broadcast receiver field dated as of October 1, 1959, and is to record certain further understandings between the parties as follows:

1. The letter dated December 9, 1959 signed by the parties and modifying certain of the terms of said License Agreement is cancelled by mutual consent as of June 30, 1960.

2. From the field of said License Agreement in which licenses are granted there are deleted all sound radio receiving equipment (Article II, Sections 2a, 2c and 2e) and color television receiver apparatus (Article II, Sections 2b, 2d and 2f).

3. The licenses granted under Article II of said License Agreement with respect to monochrome television receiver apparatus are restricted to United States Letters Patent No. 2,547,648—Loughren.

4. The several percentage rates of royalty recited in Article III, Section 1, are reduced to fifty per cent (50%) of the rates specified and the annual lump sum payment specified in Article III, Section 6 is reduced from Fifty

Thousand Dollars ($50,000.) to Twenty-Five Thousand Dollars ($25,000.).

This letter is written in duplicate and upon acceptance by your company, shall be taken together with and considered as a part of aforesaid License Agreement effective as of July 1, 1960.

Very truly yours,

Hazeltine Research, Inc.
by W. O. Swinyard,
Vice President.

(Corporate Seal)

Attest:
(Illegible),
Assistant Secretary.

Accepted:

The Magnavox Company of Tennessee,
(Corporate Seal) By J. S. Sturgeon,
Vice President and Treasurer.

Attest:
Gerard M. Ungaro,
Secretary.

PLAINTIFF'S EXHIBIT NO. 55.

The Magnavox Company
Fort Wayne 4, Indiana

December 6, 1960

Mr. Laurence B. Dodds
Hazeltine Research, Inc.
5445 West Diversey Avenue
Chicago 39, Illinois

Dear Mr. Dodds:

As referenced to my letter of December 1, 1960, a recent study has indicated that the 83.7% factor referred to in the second to the last paragraph of my letter dated December 16, 1959, should be changed to about 80.7%

There has been a further change in the industry situation. In the case of RCA, their manufacturing subsidiary sells to a national sales subsidiary corporation which in turn sells to local distributors (both wholly owned and independent). RCA has obtained a ruling from the Bureau of Internal Revenue that, for the purpose of establishing constructive sales prices upon which to base federal excise taxes, the constructive sales price on the sale by the RCA manufacturing subsidiary to the national sales subsidiary corporation shall be 90% of the lowest established prices for which the national sales subsidiary resells the article to independent distributors. I understand that several other major competitors have obtained similar rulings. In our case, we are still selling directly to retailers but have also established one distributor. The prices at which we sell to the distributor will average about the same as and are based on the industry study referred to above; i.e., 80.7% of the prices at which we sell to retailers. We are

now in substantially the same position as RCA in that our manufacturing corporation, The Magnavox Company of Tennessee, sells to the parent company which functions as a national sales corporation which, in turn, sells to both retailers and to our distributor.

In view of the above it is requested that for the purpose of computing royalties under our license agreement we be permitted to compute royalties on the basis of 90% of our actual selling prices to our independent distributor. This will place us in the same competitive position as your other licensees.

If you are in agreement with the above I would appreciate your confirming our understanding by executing the attached carbon copy of this letter and returning it to us.

Very truly yours,

The Magnavox Company of Tennessee,
J. S. Sturgeon,
Vice President and Treasurer.

Confirmed by
Hazeltine Research, Inc.
By W. O. Swinyard,
Vice President.

PLAINTIFF'S EXHIBIT NO. 58.

December 5, 1950

Mr. Miguel:

This afternoon I spoke with Mr. Brownlee of Canadian Radio Patents which, as you know, is the Canadian Patent Pool. I was advised by Mr. Brownlee that it has been the experience of other radio manufacturers that a license from the Pool suffices to protect the manufacturers from any material patent problems. As you know, the patents of RCA, Hazeltine, General Electric, Westinghouse, Western Electric, Canadian Marconi, Phillips, and several others are included in the licensing schedule.

The royalty rate is 3½% of the manufacturers net selling price. Certain deductions are permitted as, for example, for sales and excise taxes, cost of tubes, cost of record changers and cabinet costs in excess of $30.00. There is no minimum royalty payment required by the license but an advance of $1,000 must be made by the licensee to cover any defaults in royalty payments. The royalty payments are due on the 20th of each month. There are presently 42 licensees in the pool.

Mr. Brownlee stated that under Section 65 of the Canadian Patent Act it is impossible for the Pool to license importation of radio and television apparatus. Any attempt on their part to license such importation may, upon complaint of some Canadian manufacturer, result in forfeiture of the patents in the Pool. Therefore, one taking a license under the patents of the pool must at least have the intent to manufacture in Canada. If it appears that the licensee has no such intent the pool will cancel his license and he will, of course, then be subject to an infringement action. I indicated that during a transitional period it

might be necessary for us to bring sets into Canada from our plant in the United States. Mr. Brownlee indicated that they are quite reasonable in such cases and if it appeared that we would, in fact, have an intent to ultimately manufacture sets in Canada they would not cancel their license to us. He indicated that they had one experience involving Emerson in which they were forced to cancel the license because it became clear that Emerson had no intention of ever manufacturing in Canada.

I have asked Mr. Brownlee to send me a copy of their standard license agreement and it should be in my hands in the next few days. When I receive it I will pass it along to you with my comments

Bruce L. Birchard
Patent Department

BLB:MLM

PLAINTIFF'S EXHIBIT NO. 60.

Canadian Radio Patents Limited
159 Bay Street
Toronto

This will acknowledge receipt of your letter of November 13th regarding an inquiry from a Canadian manufacturer as to the conditions of obtaining a license under the patent rights of this Company.

Canadian Radio Patents Limited owns or controls in excess of 600 patents applicable to the radio receiving set field, which include the major Canadian patents in the radio set field originally owned by such companies as Canadian General Electric Company Limited, Canadian Marconi Company, Canadian Westinghouse Company Ltd., Northern Electric Co. Limited, Rogers-Majestic Corporation Ltd., and RCA Victor Co. Limited. A number of these patents are basic in the art and our patent attorneys and engineers report it is virtually impossible to make a modern radio receiving set without utilizing one or more of the patent rights owned or controlled by this Company.

The Canadian Patent Act requires reasonable manufacture of the patented article in Canada and, in order to comply therewith, the Patents Company has required each of its licensees, as shown on the attached announcement, to set up manufacturing facilities in Canada. If the manufacturer in question is interested in so doing, consideration will be given to an application for a license under our patent rights. Our standard license agreement provides for a royalty of 8% payable on the chassis plus speaker portion of the selling price of the complete radio set with a minimum annual royalty of $10,000 payable.

If the manufacturer in question is interested in obtain-

ing a license, please have him make a formal application to this Company. In considering applications, the Board of Directors require information as to the investment to be made in radio, plant and equipment; full details as to the personnel of the Company, its board of directors, etc.; complete information with respect to financial responsibility; the volume of sales expected and all other data which may be necessary to give us a complete understanding of what the manufacturer proposes to do.

As you no doubt know, there have been numerous references by Government officials to the limitation or banning of the manufacture of new radio models so as to avoid further strain on the tooling industry. To set up manufacturing facilities in Canada would require extensive tooling and we would have to give serious consideration to this angle of the problem.

Wherever possible, we have always found it more satisfactory to discuss this subject personally with the parties interested so that we may get to know them and they us. Consequently, if the manufacturer is interested in proceeding on the general basis outlined, we would appreciate having him drop in to see us.

Yours very truly,

(signed) W. W. Richardson,
Manager.

PLAINTIFF'S EXHIBIT NO. 62.

FINANCIAL HIGHLIGHTS

	1962	1961	1960
Sales	$312,212,334	$274,167,987	$254,111,740
Net Income After Taxes	19,637,068	18,014,788	15,225,819
Per share	2.16	1.99	1.70
Dividends Paid	10,895,645	10,498,952	8,160,465
Per share	1.20	1.16⅔	.91⅔
Working Capital	73,212,710	69,241,438	68,285,118
Expenditures for Facilities	9,662,389	2,116,015	4,241,990

ZENITH RADIO CORPORATION

ANNUAL REPORT

FOR THE YEAR ENDED DECEMBER 31, 1962

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ZENITH RADIO CORPORATION

Hazeltine Research, Inc. vs. Zenith Radio Corporation Plaintiff's Exh. No. 62 C.A. No. 59-C-1847

DIRECTORS

Hugh Robertson

Frank A. Miller
W. S. Woodfill
E. N. Rauland

Karl E. Hassel
Joseph S. Wright
Eugene M. Kinney

Hays MacFarland
S. Kaplan
Leonard C. Truesdell

OFFICERS

Hugh Robertson, *Chairman of the Board*
Joseph S. Wright, *President*
S. Kaplan, *Executive Vice President and Treasurer*
Leonard C. Truesdell, *Executive Vice President—Marketing*
Donald MacGregor, *Vice President—Manufacturing*
J. E. Anderson, *Vice President—Purchasing*
J. E. Brown, *Vice President—Engineering*
Dr. Robert Adler, *Vice President—Director of Research*
Eugene M. Kinney, *Vice President—Hearing Aid*
Ralph M. Spang, *Vice President and Controller*
J. M. Ferren, *Vice President—Industrial Relations*
Francis W. Crotty, *Vice President—Patents*
Nathan W. Aram, *Vice President—Chief Engineer*
Frederick L. Hedblom, *Vice President—Works Manager*
Dr. Alexander Ellett, *Vice President—Special Scientific Projects*
Karl E. Hassel, *Secretary and Assistant Vice President*
J. Kuhajek, *Assistant Treasurer and Assistant Secretary*
Albert J. Franczak, *Assistant Treasurer and Assistant Controller*
H. M. Chesser, *Assistant Secretary*
Edwin M. Schroeder, *Assistant Secretary*

TRANSFER AGENTS

The First National Bank of Chicago, Chicago, Illinois
Chemical Bank New York Trust Company
New York, New York

REGISTRARS

Continental Illinois National Bank & Trust Co. of Chicago
Chicago, Illinois
The Chase Manhattan Bank, New York, New York

COUNSEL

Thos. C. McConnell
Philip J. Curtis
McConnell, Curtis & McConnell
Chicago, Illinois

GENERAL OFFICES

6001 Dickens Avenue, Chicago 39, Illinois

SUBSIDIARIES

ZENITH SALES CORPORATION
Chicago, Illinois

Leonard C. Truesdell, *President*
S. Kaplan, *Executive Vice President*
Clifford J. Hunt, *Vice President—Operations*
Walter C. Fisher, *Vice President—Distribution*
Erik Ingrig, *Vice President—Advertising*
Philip J. Wood, *Vice President—Field Sales*
John A. Miguel, Jr., *Vice President—Export*
Ted Leitzell, *Director of Public Relations*

WINCHARGER CORPORATION
Sioux City, Iowa

R. F. Weinig, *Vice President and General Manager*

THE RAULAND CORPORATION
Chicago and Niles, Illinois

E. N. Rauland, *President*
W. E. Phillips, *Vice President and General Manager*

ZENITH RADIO DISTRIBUTING CORPORATION
Chicago, Illinois

Robert C. Wallace, *Vice President and General Manager*

ZENITH RADIO CORPORATION OF NEW YORK
New York, New York

Harry Schecter, *Vice President and General Manager*

CENTRAL ELECTRONICS, INCORPORATED
Paris, Illinois

L. Scinto, *Vice President*

ZENITH RADIO RESEARCH CORPORATION
Menlo Park, California

Dr. L. C. Foster, *Vice President and Director of Research*

ZENITH RADIO CORPORATION OF CANADA LTD.
Toronto, Ontario, Canada

Sydney L. Capell, *Vice President—Radio and Television*
Roy W. Pratt, *Vice President—Hearing Aid*

ZENITH RADIO CORPORATION OF CALIFORNIA
Los Angeles, California

INTEROCEAN ADVERTISING CORPORATION
New York, New York

TO THE STOCKHOLDERS

OF ZENITH RADIO CORPORATION

The year 1962 was another period of sound growth for your Company.

Highlights of this year of significant progress for Zenith Radio Corporation and its subsidiaries are outlined below:

- New records in sales and earnings were established for the fifth time in six years.
- More than one million black and white television receivers were produced and sold for the fourth successive year. Production, factory shipments and distributor sales were at new record highs.
- Our first place position was maintained and strengthened in the increasingly competitive television industry.
- Color television engendered gratifying acceptance and strength during our first full year of production and sales.
- A new record in distributor sales to dealers of radio receivers was set with increases being attained in practically all categories.
- Production, factory shipments and distributor sales of high fidelity stereo instruments were at all-time highs.
- Our dominant position of leadership in the hearing aid industry was maintained.
- A three year test of Phonevision, the Company's over-the-air system of subscription television, was started.
- Expansion programs to add over one million square feet of required research, engineering and production space were vigorously advanced.
- Color television tube production was started on a pilot basis, with full production scheduled by mid-1963.

FINANCIAL

Net consolidated earnings for the year 1962 amounted to $19,637,068, or $2.16 per share, after provision for income taxes of $21,300,000. This represented a 9% increase over the previous record earnings reported for 1961 of $18,014,788, or $1.99 per share. Per share earnings are based on 9,104,029 shares outstanding as of December 31, 1962, and 9,081,542 shares outstanding at the end of 1961.

Net consolidated sales for the year of $312,212,334 were 14% above the previous record sales of $274,167,987 reported for 1961.

Your Company elected to adopt the new U. S. Treasury Department guideline lives for depreciating property. The increased depreciation allowance available to your Company under this ruling and reflected in 1962 operating expenses aggregated approximately $300,000.

Under the Revenue Act of 1962, Zenith and its subsidiaries are entitled to a special tax credit against Federal income taxes for investment in certain depreciable equipment. For statement purposes, the allowable tax credit will be included in earnings through reduced depreciation expense over the productive life of the equipment. On this basis, tax credit generated by equipment acquisitions during 1962 was relatively minor.

Results for the year reflect costs of the satisfactory settlement of the Marshall-Wells litigation. Under terms of the settlement Marshall-Wells was permanently enjoined from making or selling household appliances or related products under the "Zenith" name.

Working capital (current assets less current liabilities) at December 31, 1962, totaled $73,212,710. This represented an increase during the year of $3,971,272, after segregation of $9,500,000 in government securities to finance plant expansion programs scheduled for completion in 1963. Current assets of $108,300,334 at year end were 3.1 times current liabilities.

Expenditures for new and improved facilities aggregated $9,662,389 during 1962. Dismantlement and retirement of plant and equipment during the year totaled $1,576,059 on which accumulated depreciation amounted to $1,506,818.

DIVIDENDS

Dividend payments during 1962 amounted to $1.20 per share. Three quarterly dividends of $.20 each were paid in March, June and September; a $.25 quarterly dividend and a $.35 extra were paid in December. Dividend payments totaling $10,895,645 were the highest in your Company's history.

SUBSIDIARIES

Zenith Sales Corporation, responsible for marketing consumer products in the export and domestic markets,

continues to make a substantial contribution to the Company's continued progress. The growth of Zenith consumer sales can be attributed in a large measure to the timeliness and effectiveness of their marketing and advertising programs. Merchandising programs are continuously reviewed and updated to insure that Zenith products represent the best value to the consumer and the soundest merchandise for distributor and dealer.

The Rauland Corporation undertook two major expansion programs during the year. Color television tube production was started on a pilot basis late in 1962 at their main plant in space made available through relocation of other activities and the construction of a new 55,000 square foot addition. The new facilities, including specially designed and constructed fabrication equipment, are scheduled to be in full production by mid-1963. Special purpose electronic tube research, development and production activities were moved in September 1962 to a new 100,000 square foot building in Niles, Illinois.

Rauland's sales for the year were at an all-time high. Profits for the period, however, were unfavorably affected by (1) the unrealistic pricing situation in the cathode ray tube industry, (2) moving and rearrangement expenses and (3) high starting costs on initial color television tube production. Rauland's profit picture, however, should show improvement in 1963. Although operations during the first half of the year will continue to be affected by starting costs of color television tube production, other operating factors will be more favorable. The major portion of the moving expenses was absorbed in 1962 and a general price increase on tubes to a more realistic level was announced in early January.

Wincharger Corporation, a subsidiary which manufactures radio receivers under contract for the Zenith Sales Corporation, electric motors and power generators, had satisfactory earnings and sales for the year. Power generator sales established an all-time record in 1962 and the trend has continued with January 1963 being the best power generator month in Wincharger's history.

Central Electronics, Incorporated, in their first full year of operation in the new Paris, Illinois, facility proved to be a highly efficient supplier of component products.

Profits of Zenith Radio Corporation of Canada, Ltd. were again affected as a result of curbs instituted by the Canadian Government. Its action in establishing an exchange ratio which further discounted the Canadian dollar in relation to the U. S. dollar and the imposition of additional tariffs presented serious obstacles to the Canadian operation.

Other subsidiary companies, in most instances, reported satisfactory operating results in contributing to Zenith's record consolidated sales and earnings.

CONSUMER PRODUCTS

Zenith consumer product sales increased substantially during the past year.

Color television played an important part in Zenith's increased sales volume in 1962. Consumer recognition of the high quality and superior performance of Zenith television receivers has contributed to the Company's rapid growth in color television sales. Although 1962 was its first full year in the production and sale of color television receivers, your Company has long been a pioneer in color television development. In 1939, for example, Zenith demonstrated color television in its color laboratories, and in 1949 built the color television receivers that were used for closed-circuit telecasting of surgical operations. The industry's first 21-inch rectangular color television receiver, using a Rauland-produced tube, was demonstrated by Zenith in 1954. Programs in engineering, manufacturing and marketing are keyed to assuring Zenith's continued leadership and participation in the growing color television market.

Zenith television sets were again the No. 1 choice of the consumer. Production and shipments were the highest in Zenith's history, exceeding one million units for the fourth successive year. Distributor sales to dealers were also at a record high.

High fidelity stereophonic instrument sales posted significant gains with production, factory shipments and distributor sales of Zenith sets at all-time highs. The public interest in stereophonic sound reproduction has been heightened by the rapid expansion of Stereo FM broadcasting since its approval by the Federal Communications Commission in April 1961. Zenith, a long time exponent of FM and major contributor to the development of Stereo FM, has been in an excellent position to benefit from this expanding market.

Distributor sales to dealers of radio receivers were the highest of any year in Zenith's history. Gains were shown in practically all categories.

Zenith's hearing aid division completed a comprehensive operational study during 1962 which will result in a major reorganization of the engineering, manufacturing and distribution functions. The changes, when completed in mid-1963, will further strengthen our hearing aid operations and assure Zenith's continued position as the world's leading producer of quality hearing aids.

Zenith's constant objective of producing quality

products incorporating unexcelled performance standards has remained unchanged during the past forty-four years. Back of each Zenith product are months, even years, of planning. Research, engineering, production and marketing at Zenith coordinate their timing, efforts and resources to bring the consumer outstanding products attractively designed, intelligently priced and aggressively merchandised.

RESEARCH AND SPECIAL PRODUCTS

Research and engineering have been major contributing factors to Zenith's growth and acknowledged leadership in the electronics industry. It is from these areas that come improvements and exclusive features for existing products. Here, too, is the source of ideas for new products to further our diversification and growth.

Research and engineering activities, directed exclusively to electronics, were further expanded and accelerated during 1962. Your Company is contributing to the advancement of many areas of scientific endeavor through continuing research in microwave communications; semi-conductor devices, infrared devices, lasers, luminescent and other solid state materials; special vacuum tubes and other fields. Research in solid state materials is being stepped up by the establishment of a research laboratory in England which is expected to be in operation by May.

Out of this continuing research and engineering have come an increasing number of products for defense and industrial applications, as well as improvements in consumer products. The Special Products Division was enlarged during the year to bring these special products to the market place and acquaint potential customers with our research achievements.

Your management proposes to continue its emphasis on these highly important areas of research and engineering. *A review of research and special product activities starts on page 21.*

EXPORT

Export operations during the year continued to be affected by ever-tightening import restrictions and dollar-exchange controls in the major foreign markets. Consumer product exports to Latin America declined substantially from 1961 whereas sales to Europe, Africa and several other markets were improved. Competition from foreign producers, particularly in the Far East, is unprecedented.

Your Company is, nevertheless, continuing to pursue the development of export policies and plans to effectively cope with the restrictions and competition currently experienced.

LITIGATION

The Company is involved in certain legal actions arising out of matters incident to the conduct of its business and adequate provision has been made for any liability resulting therefrom. In the opinion of management and counsel, the outcome of these litigations should be favorable to the Company.

EMPLOYEE RELATIONS

One of the Company's great strengths has been the ability, conscientious performance and support displayed by Zenith and subsidiary company employees. Your management is pleased that a mutual relationship of respect and understanding continues to exist between the Company, the employees and the unions representing hourly paid employees.

The Zenith Profit-Sharing Retirement Plan is of great value in attracting and retaining desirable employees. The Plan continues to provide Company employees with a double incentive for reducing costs, improving performance and increasing profits. The normal incentive, provided by the employees' participation in current profits, is augmented and intensified by the Plan's ownership of 672,300 shares of Zenith stock.

OUTLOOK

The year 1963 gives tangible promise of being another year of continued progress and growth for Zenith. Factory shipments of both color and black and white television receivers in January were at all-time record highs for *any* month. It is expected that sales for the first three months of 1963 will be the highest of any quarter in Zenith history.

The Board of Directors is grateful for the loyalty and outstanding efforts of the thousands of people—employees, distributors, dealers and suppliers—who have contributed so much to our success, and upon whom we rely for our future progress.

Respectfully submitted,

Hugh Robertson

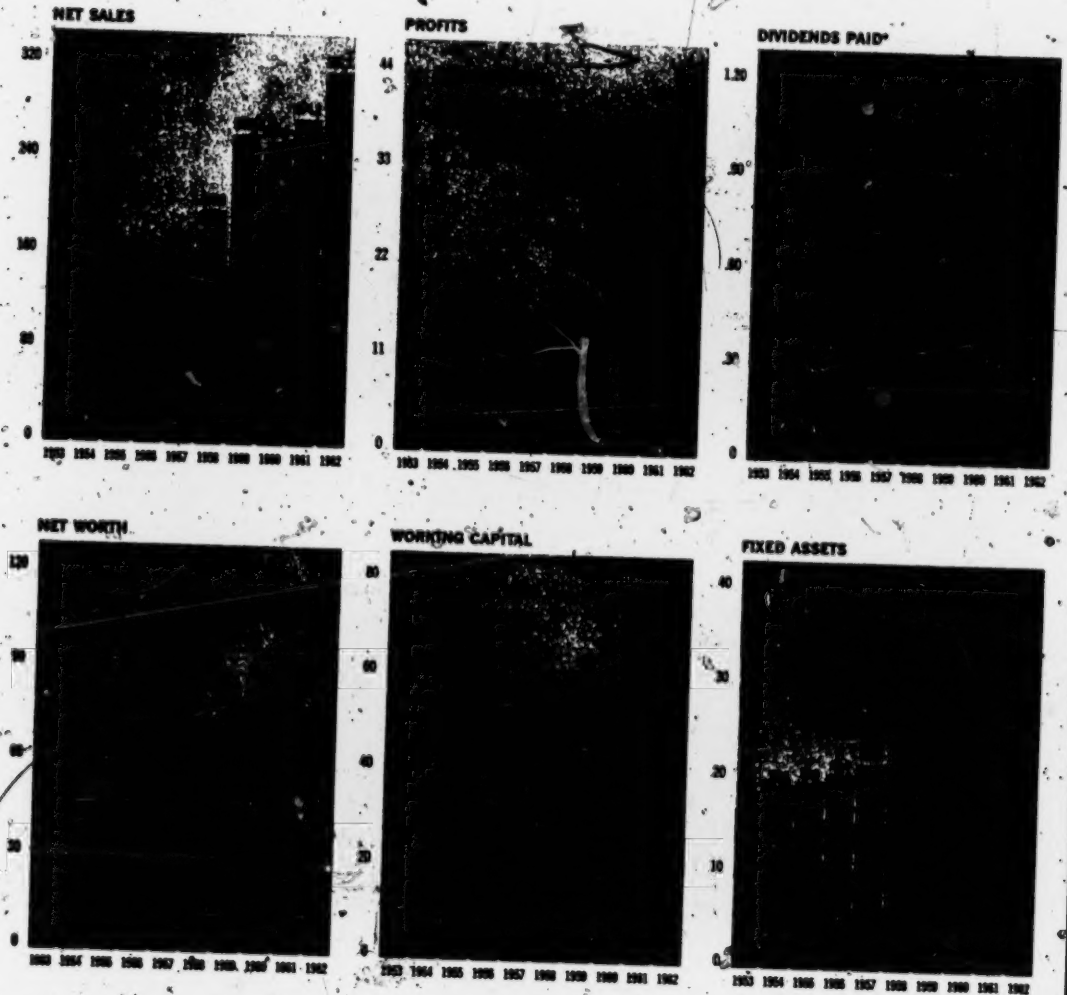
Hugh Robertson, *Chairman*

March 11, 1963

Joseph S. Wright

Joseph S. Wright, *President*

YOUR COMPANY'S RECENT PROGRESS



*Adjusted to reflect two-for-one stock split on March 31, 1955, three-for-one stock split on May 8, 1956, and three-for-one stock split on November 2, 1961.

ZENITH RADIO CORPORATION AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS DECEMBER 31, 1962 AND 1961

ASSETS

	1962	1961
CURRENT ASSETS:		
Cash	$ 30,629,020	$ 29,457,089
U.S. Government securities, at cost	26,724,266	26,678,407
Receivables, less reserves of $2,516,600 in 1962 and $2,373,000 in 1961	25,843,266	24,296,124
Inventories, priced at lower of cost (first in, first out) or market, including finished goods of $6,306,318 in 1962, and $6,488,554 in 1961	25,103,780	23,507,568
Total current assets	108,300,334	103,941,188
OTHER ASSETS:		
Funds segregated for planned plant expansion represented by U.S. Government securities at cost	9,500,000	10,000,000
Receivable from settlement of litigation, due $1,000,000 annually, less $1,000,000 in current receivables	3,000,000	4,000,000
Prepaid expenses	749,039	771,256
Total other assets	13,249,039	14,771,256
PROPERTY, PLANTS AND EQUIPMENT, at cost	39,202,519	31,006,500
Less—Reserves for depreciation and amortization	17,140,532	16,377,422
Net property, plants and equipment	22,061,987	14,628,078
BROADCASTING STATIONS, PATENTS AND TRADEMARKS, at nominal value	1	1
	$143,611,361	$133,340,502

LIABILITIES

	1962	1961
CURRENT LIABILITIES:		
Accounts payable and accrued liabilities	$ 19,147,631	$ 18,544,122
Salaries, wages and taxes	9,084,279	9,568,450
Contribution to Zenith Profit-Sharing Retirement Plan	6,841,428	6,506,562
Provision for Federal income taxes, less U.S. Government securities of $17,000,000 in 1962 and $15,700,000 in 1961	94,296	80,645
Total current liabilities	35,067,634	34,699,780
CAPITAL STOCK AND SURPLUS:		
Capital stock, $1 par value per share; authorized, 12,000,000 shares; outstanding, 1962, 9,104,029 shares, 1961, 9,081,542 shares (note)	9,104,029	9,081,542
Capital surplus, per accompanying statement	1,227,380	158,226
Earned surplus, per accompanying statement	98,193,338	89,450,806
Total capital stock and surplus	108,523,727	98,640,772
	$143,611,361	$133,340,502

NOTE: Under the 1959 employee stock option plan, ten-year options, exercisable one fifth eighteen months from date of grant and one fifth per year thereafter, are outstanding at December 31, 1962, for the purchase of 336,000 shares of authorized but unissued capital stock at prices ranging from $14.94 to $67.50 per share. During the year options for 72,487 shares were exercised, options for 1,000 shares were canceled and additional options totalling 7,500 shares were granted. 12,500 shares are available for the granting of additional options under the plan.

Plaintiff's Exhibit No. 62.

2853

ZENITH RADIO CORPORATION AND SUBSIDIARIES

STATEMENTS OF CONSOLIDATED INCOME AND SURPLUS

FOR THE YEARS ENDED DECEMBER 31, 1962 AND 1961

INCOME

	1962	1961
NET SALES	$312,212,334	$274,167,987
COSTS AND EXPENSES:		
Cost of sales	234,366,925	202,810,349
Selling, advertising and administrative expenses	27,835,844	24,692,148
Contribution to Zenith Profit-Sharing Retirement Plan	6,841,428	6,506,583
Provision for depreciation	2,231,569	1,804,119
Total	271,275,266	235,813,199
Income before Federal income taxes	40,937,068	38,354,788
PROVISION FOR FEDERAL INCOME TAXES	21,300,000	20,340,000
Net income for the year	$ 19,637,068	$ 18,014,788

SURPLUS

	1962	
	Capital Surplus	Earned Surplus
BALANCE, DECEMBER 31, 1961	$ 158,325	$ 89,450,905
ADD:		
Net income for the year, as shown above	—	19,637,068
Excess of proceeds from sales of 72,487 shares of capital stock under employees' stock option plan over par value of stock issued	1,069,055	—
	1,227,380	109,087,973
DEDUCT:		
Cash dividends declared ($1.20 per share)	—	10,895,645
BALANCE, DECEMBER 31, 1962	$ 1,227,380	$ 98,192,328

AUDITORS' OPINION

To the Stockholders, Zenith Radio Corporation:

We have examined the consolidated balance sheet of ZENITH RADIO CORPORATION (a Delaware corporation) AND SUBSIDIARIES as of December 31, 1962, and the related statements of consolidated income and surplus for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying consolidated balance sheet and related statements of consolidated income and surplus present fairly the financial position of Zenith Radio Corporation and Subsidiaries as of December 31, 1962, and the results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

ARTHUR ANDERSEN & CO.

Chicago, Illinois,
February 11, 1963.

PLAINTIFF'S EXHIBIT NO. 63.

ZENITH RADIO CORPORATION.

Operating Profit Percentages (Canadian Sales).

	1960	1961	1962	1963
Television				
Used in tabulation of last profit	16.14%	20.63%	22.06%	22.08%
Reduction for expenses considered fixed:				
Advertising	1.34	1.16	2.85	3.24
Fringe on direct labor	1.12	1.31	1.10	.89
Tools & dies	.89	.80	.75	.82
Factory overhead	3.34	2.88	3.48	3.28
Engineering	2.18	1.91	1.67	1.63
Indirect administrative	1.39	1.80	1.65	1.37
Legal expense	.28	.21	.43	.18
Sales expense	.80	.58	.76	.85
	11.34	10.65	12.69	12.26
Purported actual operating profit	4.80%	9.98%	9.37%	9.82%
Radio				
Used in tabulation of last profit	16.02%	17.48%	19.80%	20.90%
Reductions for expenses considered fixed:				
Advertising	1.51	1.14	2.84	3.25
Fringe on direct labor	1.12	1.28	1.22	1.00
Tools & dies	.50	.45	.45	.43
Factory overhead	2.71	2.30	3.13	2.57
Engineering	2.18	1.91	1.67	1.70
Indirect administrative	1.39	1.80	1.65	1.42
Legal expense	.28	.21	.43	.18
Sales expense	.71	.58	.89	1.02
	10.40	9.67	12.28	11.57
Purported actual operating profit	5.62%	7.81%	7.52%	9.33%

1541 UNITED STATES DISTRICT COURT.

Chicago 4

Chambers of
Judge Richard B. Austin

January 25, 1965.

Mason, Kohlmainen, Rathburn & Wyss.
20 North Wacker Drive,
Chicago, Illinois 60606,

Dugald S. McDougall, Esquire,
135 South LaSalle Street,
Chicago, Illinois,

Messrs. Thomas C. McConnell and Philip J. Curtis,
134 South LaSalle Street,
Chicago, Illinois,

Francis W. Crotty, Esquire,
6001 W. Dickens Avenue,
Chicago, Illinois.

Re: Hazeltine Research, Inc. *vs.* Zenith Radio Corp.,
59 C 1847.

Gentlemen:

The court has reviewed the evidence, exhibits and briefs of the parties on both the patent and antitrust phases of the above cause and finds for the defendant on the issues raised by the complaint and answer and the counterclaim.

The Findings of Fact and Conclusions of Law proposed by defendant accord with those which the court would have entered and they are hereby adopted as the court's findings and conclusions. These have this day been signed and entered.

Counsel are directed to submit an appropriate judgment order within thirty (30) days from date hereof.

The court appreciates the able presentation of this case made by all counsel and their invaluable assistance in the submission of their proposed findings and conclusions.

Very truly yours,

R. B. Austin,
Judge.

1484 IN THE UNITED STATES DISTRICT COURT.

Northern District of Illinois,

Eastern Division.

Hazeltine Research, Inc., *Plaintiff*,
vs.
Zenith Radio Corporation, *Defendant*.
No. 59 C 1847

FINDINGS OF FACT AND CONCLUSIONS OF LAW ON THE PATENT AND ANTITRUST ISSUES.

Part I—Findings of Fact.

1485 Findings of Fact and Conclusions of Law.

I. The Parties, The Action, And The Issues.

1. Plaintiff Hazeltine Research, Inc., an Illinois corporation, is a patent holding and licensing company. Defendant Zenith Radio Corporation, a Delaware corporation, is a manufacturer of radio and television receivers. Both parties have regular and established places of business in Chicago, Illinois, in this District and Division.

2. The complaint alleges a cause of action for patent infringement, and the jurisdiction of this Court arises from the patent laws of the United States. The venue is properly laid in this District and Division.

3. The patent in suit is United States Letters Patent No. 2,547,648, entitled "Automatic Contrast Control System For Television Apparatus," issued to plaintiff on April 3, 1951, as the assignee of Arthur V. Loughren. Plaintiff has owned the Loughren patent at all times since its issuance. It was granted on an application, Serial No. 120,404, filed in the United States Patent Office on October 8, 1949. That application is asserted by plaintiff to be a "continua-

tion" of a prior application, Serial No. 643,287, filed on January 25, 1946. On the basis of that assertion, plaintiff contends that the 1949 application is legally entitled to the 1946 filing date of the earlier one. Defendant challenges this position, asserting that the 1949 application was not truly a "continuation" and hence not legally entitled to the 1946 date.

1486 4. Defendant is charged with having infringed claims 1, 2, and 4 of the patent in suit, the accused products being television receivers made and sold by defendant. All three of those claims were first submitted to the Patent Office in the aforementioned 1949 application, Serial No. 120,404. None of the claims carried forward from plaintiff's 1946 application is involved in the case.

5. Defendant denies having infringed plaintiff's patent, and it further avers that, in any event, plaintiff's claims in suit are invalid. The invalidity defense rests on these two independent grounds:

(a) Defendant asserts that the patent in suit, insofar as the claims alleged to be infringed are concerned, has an effective filing date of October 8, 1949, when the second application was filed, and that the claims in suit are accordingly invalid by reason of publication of their subject matter, and public use and sale thereof in this country, more than one year before the filing date of the patent.

(b) Defendant asserts that the claims in suit are void, regardless of their effective filing date, for failure to describe any invention patentable over the prior art.

Defendant also pleaded that the patent in suit is unenforceable by reason of its misuse by plaintiff. This defense, however, was reserved for separate trial, along with defendant's counterclaim seeking damages from plaintiff for anti-trust law violations.

1487 II. Facts Concerning Electrical Concepts and Circuit Elements Involved in the Case.

6. The term "current" in the electrical sense, refers to movement of electric charges. There are two types of electrical charge—positive and negative—but normally only negative charges (known as electrons) are mobile, and in consequence electric current nearly always consists of a flow of electrons. It is a characteristic of electric currents that they can flow only in a closed path or loop, and such a closed path is known in electrical parlance as a "circuit." A simple circuit may consist of only a single loop; more complex circuits may involve several interconnected loops.

7. There are two basic types of electric current, known respectively as "direct current" and "alternating current." A direct current is one that flows around a circuit in only one direction, whereas an alternating current is one which periodically reverses its direction of flow. In television circuits, the currents are often of complex character, involving both direct-current components and alternating-current components.

8. The force that makes current flow in a circuit is commonly called "voltake" or "potential"; it may be thought of as electrical "pressure", analogous in some respects to hydraulic pressure. Voltage results from the fact that unlike electric charges exert an attractive force on one another, which like charge exert on one another a corresponding repelling force. Anything that will cause a non-uniform distribution of electric charge in an object will create a voltage, and such voltage will produce an electric current if an electrical conductor is provided to complete a circuit between the oppositely charged portions of the object. The common chemical battery is one familiar type of voltage-generating device.

1488 9. Voltage is commonly measured from one point

in a circuit with respect to some reference point in the same circuit. In television equipment, the reference point most commonly used is the metal chassis on which the parts are mounted, and this is usually called "ground," even though in practice there may be no actual conductor joining the metal chassis to the earth.

10. A "resistor" is an electric circuit element intentionally designed to offer resistance to the flow of electric current through it, the amount of such resistance being measured in terms of a unit called the "ohm." When current flows through a resistor, a voltage proportional in magnitude to that of the current appears across the resistor's terminals. Accordingly, in addition to being used for other purposes, resistors are often employed in television apparatus to derive from a varying signal current a proportionally varying signal voltage. When thus used, a resistor may be called an "impedance" or "load impedance."

11. A "capacitor" is an electric device having the property of storing electric charge, analogous in some ways to an elevated water tank. When connected in a circuit with a direct-voltage source, a capacitor will accumulate charge from the source until the stored charge produces a counter-voltage equal to the source voltage. If a charged capacitor is connected into a conductive circuit, it will act temporarily as a voltage source and drive current around the circuit. Because a capacitor, unlike a battery, has no internal means of rnewing its charge, however, the voltage of the capacitor will diminish as the current flows and ultimately drop to zero, unless its charge is replenished from some outside source.

12. Of outstanding prominence among the electrical components dealt with in this record are the devices
1489 known as "vacuum tubes." Two types are relevant here—the two-element vacuum tube, known as a

"diode," and the vacuum tube having three or more elements, generically known as a "grid-controlled tube."

13. A two-element vacuum tube or "diode" consists of an evacuated envelope, usually made of glass, containing one conductive element called a "cathode" and another called an "anode" or "plate." These electrodes are spaced a short distance apart, with a vacuum in between. The cathode is coated with a material having the property, when heated, of giving off electrons (i.e., negative electric charges) in great quantities. When the anode is at a negative voltage with respect to the cathode, these electrons do not go anywhere; they simply form a "cloud" around the cathode. If a voltage source be connected in a circuit with the cathode and anode so as to charge the anode to a positive voltage with respect to the cathode, however, the attractive force exerted by the positive anode will draw the electrons from the cathode across the intervening vacuum and thus create an electric current in the circuit. No electrons will flow through the diode in the other direction, however, even if the polarity of the voltage source be reversed. Devices, such as diode tubes, which have this property of conducting current in only one direction are known in the electrical art as "rectifiers."

14. A "grid-controlled tube" is a device which, like the diode, has a cathode and an anode enclosed in an evacuated envelope. It has in addition, however, a third electrode called a "grid," situated in the space between the cathode and the anode. This grid is formed of spaced wires which do not, in the mechanical sense, prevent the flow of electron current from the cathode to the anode, but which may, by electric forces, control—i.e., regulate—the rate at which such current flows. If the grid be at the same voltage
1490 as the cathode, electron current, will flow from the cathode to the anode whenever the anode voltage is positive with respect to the cathode, just as in a diode.

If the grid voltage be made negative relative to the cathode, however, the rate of electron flow from cathode to anode will be reduced, and if the grid voltage be made sufficiently negative with respect to the cathode, the electron current between cathode and anode will be cut off entirely. Thus the grid performs a function analogous to that of an adjustable valve in a water hose. Tubes having only one grid are called "tridoes," indicating that the tube contains three electrodes. Some tubes have more than one grid and are called "tetrodes," "pentodes," etc., depending on the number of electrodes they contain.

15. All the electrical concepts and circuit elements described in the findings just foregoing were old and well know prior to any of the work on which plaintiff's patent in suit is based.

III. How Television Pictures Are Transmitted And Received.

16. In a television system, an image of the scene to be televised is projected by a lens system onto the screen of a "camera tube", where the image is "scanned" by a rapidly moving electron beam sweeping across the image from side to side, each sweep being vertically shifted by a small amount from the path of its predecessor, so that the entire image area is progressively traversed. As this electron beam in the camera tube "scans" the image of the scene being televised, its intensity varies in proportion to the brightness of the various parts of the image; in this way, a varying electric current is generated which represents the degree of brightness of the parts of the image progressively scanned. This current (known as
1491 "video signal current") is employed at the television broadcasting station to generate radio waves having corresponding intensity variations, and these in turn may be picked up by television receivers within the range of

the broadcast station. The receiver circuits utilize the radio waves to develop a video signal voltage that has intensity variations corresponding in pattern to those of the video signal current generated by the camera tube at the broadcasting station. After being amplified by a circuit in the receiver known as a "video amplifier", this video signal voltage is applied to the receiver picture tube and there used to control the intensity of an electron beam which sweeps systematically across the picture-tube screen, producing thereon a reproduction of the original image televised by the broadcasting station.

17. For the image on the receiver picture tube to correspond to that transmitted by the broadcasting station, the electron beam in the picture tube must "scan" the receiver screen in exact time synchronism with the electron beam in the camera tube. This is accomplished by modulating the radio waves from the broadcasting station with control signals (known as "synchronizing pulses" or, more commonly, "sync pulses") which are used in the receiver to govern the timing of the picture-tube scanning. These sync pulses are of uniform magnitude and occur periodically in the video signal voltage, interspersed in time between the portions representing light and dark areas of the picture. Immediately following each sync pulse is another short-duration voltage pulse that represents the so-called "black level"—*i.e.*, the amount of signal voltage corresponding to a black area of the picture.

18. The television system used in the United States is of a type known as "negative modulation", in which
1492 increasing radio-wave intensity represents darkening, as opposed to brightening, of the transmitted picture. In England, at least until recently, a so-called "positive modulation" system was used, in which increasing wave intensity represented an increase in picture brightness—*i.e.*, the converse of the negative-modulation system. Both

these types if television systems were known, and their characteristics understood, long before the work underlying plaintiff's patent in suit was done. (R. 93, 95-96, 103)

IV.—Automatic Gain-Control Circuits—Their Purpose, History, and Basic Operating Principles.

19. To do its work well, the picture tube of a television receiver should be supplied with a video signal voltage of reasonably uniform intensity—that is, the range of video signal voltage defining the spread from white to black should be essentially the same whether the receiver is tuned to a powerful station or a weaker one, and notwithstanding changes in atmospheric conditions affecting the strength of the received radio waves. In television receivers, this is achieved by means of circuits known, interchangeably, as "automatic gain control" or "automatic contrast control" circuits. These names are frequently shortened to "AGC" and "ACC", respectively. AGC circuits for television receivers have been known since a date long prior to the work which led to the patent in suit. All such circuits—prior-art and contemporary alike—operate on the same basic principle, which involves generating an electrical control voltage proportional to the strength of the received radio waves, such control voltage being then applied to the television receiver circuits in such a way as automatically to reduce the amplification when the received signal grows in strength and increase it when the received signal weakens. Hence a video signal voltage 1493 of substantially uniform intensity is obtained for operation of the picture tube, despite wide variations in the strength of the radio waves that bring the television signal to the receiver. (R. 74, 153, 275)

20. Even before television, AGC circuits were known and used in connection with sound radio receivers. These

two branches of the radio art—sound radio and television—are so related historically and professionally that a skilled worker designing an AGC circuit for television could reasonably be expected to consult the literature on sound-receiver AGC circuits as a source of ideas. Plaintiff's expert witness conceded this. (R. 1446)

21. Numerous television AGC circuits—some of them simple and some of them rather complex—had been developed before the work underlying the patent in suit was done. While these circuits varied greatly in their details, they all had in common the development of the AGC control voltage in a so-called "integrating load circuit", consisting of a capacitor and a resistor connected in parallel. This old feature has been carried forward into modern AGC circuits and is utilized in all the circuits directly involved in this case. (R. 594-595)

22. In one AGC circuit acknowledged to be prior art, the integrating load circuit was supplied with current fed through a diode rectifier from the so-called "video detector" of the television receiver. This developed across the integrating load circuit a d-c voltage substantially equal to the peak magnitude of the video signal voltage, which, in the negative-modulation television system, was that of the sync pulses. While this AGC system was simple and would work, its control of receiver gain was not as sensitive as might be desired. This deficiency could be overcome by adding a d-c amplifier to raise the magnitude of the AGC voltage before using it to control the receiver gain, 1494 but this had the disadvantage of requiring an extra stage of amplification in the AGC system. (R. 689, 702-704)

23. The simple AGC circuit just described could not be used with "positive modulation" television signals, because in such signals the peak magnitude would vary with the picture brightness as well as with changes in signal

strength. The "black level" portions of positive-modulation television signals were a suitable index of actual signal strength, however, and early television designers accordingly developed AGC systems that were specifically engineered to develop an AGC control voltage proportional to the "black level". This was done by measuring the signal voltage only at those instants of time during which the black-level component was being received, and the circuits which accomplished that result were known, in the engineer's jargon, as "reacher-inners". These circuits, while designed primarily for positive-modulation television, would also work—and equally well—in receiving negative-modulation television pictures. Such circuits were known as early as the 1930's. (R. 221-222)

V. The AGC Circuit Of The Patent In Suit—How It was Developed And How It Works.

24. The work underlying the patent in suit was undertaken in the fall of 1945, when Arthur V. Loughren, named in the patent in suit as inventor, was in charge of an engineering group in plaintiff's laboratory. Loughren's task at hand was designing a television receiver, and one of the goals desired was an improved AGC system. An engineer named Bailey, in Loughren's group, suggested to Loughren that a more sentitive AGC could be secured if one were to start with the video signal voltage derived from the load impediance of the video amplifier, rather than from
1495 the video detector. (This was not a new idea, although Loughren at that time may have thought it was.) Starting with that lead, Loughren developed the AGC circuit of which several variants were illustrated and described in his original patent application. (R. 231-236, 815-816, 1451)

25. The main difficulty to be overcome in designing an AGC circuit that would utilize the signal voltage at the

video amplified load impedance is that the d-c voltage level at that point in a television receiver is positive with respect to ground, whereas the AGC control voltage itself must be negative with respect to ground. Loughren's idea for overcoming this difficulty consisted in offsetting the positive d-c voltage at the video amplifier load impedance by connecting the load impedance in a direct-current series circuit with the conventional components of a simple AGC circuit—*i. e.*, a diode rectifier and an integrating load circuit—and adding into the same circuit a source of voltage that would offset or "buck" the troublesome d-c voltage. This "bucking" voltage, Loughren realized, could be a mere battery, but this was deemed commercially impractical, even though it would work satisfactorily. It then occurred to Loughren that a similar result could be attained by inserting into the direct-current series circuit a source of alternating voltage, of such magnitude and frequency as to offset the d-c voltage during at least some of the periods in which sync pulses were being received. By this means, Loughren reasoned, the AGC diode would be able to conduct on sync pulses and thus develop in the integrating load circuit an AGC control voltage of the desired polarity. This approach was tried out in the laboratory, and it worked. (R. 158, 235-238)

26. Loughren's AGC circuit thus developed was more sensitive than its simple forerunner that operated on video signal voltage taken directly from the video detector, 1496 since Loughren's circuit utilized the gain of the video amplifier for AGC purposes. It had, however, certain definite requirements for successful operation, and they were clearly acknowledged in the original patent application filed on Loughren's circuit, in January of 1946. These essential requirements were:

(a) The direct-current series circuit that included the AGC rectifier and the integrating load circuit had

to include also at least a portion of the video-amplifier load impedance. (R. 639, 720, 966)

(b) the video signal voltage obtained at the video-amplifier load impedance had to be of negative polarity. (R. 742, 978)

(c) The peak magnitude of the a-c "bucking" voltage introduced into the direct-current series circuit had to be approximately equal to the d-c voltage being "offset", *i. e.*, the d-c voltage at the video-amplifier load impedance. (R. 529-530, 533-534, 716-717)

27. While Loughren's AGC circuit was tested in plaintiff's laboratory with satisfactory results, and was made the subject of a patent application, it never won any commercial recognition. In fact, no television receiver sold in the United States by any commercial mnaufacturer, so far as plaintiff knows, has ever utilized any of the circuits disclosed in the Loughren patent. Moreover, none of those circuits was ever reported by plaintiff to its patent licensees, although it was plaintiff's practice so to report developments deemed important. (R. 258, 324-325, 370)

1497 VI The History of The Patent In Suit.

28. Plaintiff's original patent application on Loughren's AGC circuit was filed January 25, 1946. In that application several variants of Loughren's circuit were illustrated and described, with due recognition given to the required conditions for operation noted in Finding 26. All the claims originally filed in that application, and all those subsequently added by amendment, recited explicitly that the rectifier, the integrating load circuit, and at least a part of the video-amplifier load impedance must be connected together in a direct-current series circuit. In short, the original Loughren patent application of 1946 was ex-

pressly restricted in its concept, its description, its drawings, and its claims to an AGC system in which that basic requirement was met. No other form of AGC circuit was described, illustrated, suggested, or claimed in that application. (PL-2, pp. 8-9, 11, 19-32, 49, 50-62)

29. The Patent Office history of the 1946 Loughren application was routine, and the application was formally allowed, with fourteen claims, on August 26, 1949. It never matured into a United States patent, however; instead, it was abandoned by plaintiff after being replaced on October 8, 1949, by the revised application which plaintiff calls a "continuation". (PL-2, pp. 90-91; PL-4, third sheet)

30. The events leading up to plaintiff's abandonment of its 1946 application and its replacement by a revised application began with Radio Corporation of America's publication, on March 15, 1949, of its technical bulletin No. LB-769. In that bulletin RCA published a television AGC circuit that resembled Loughren's circuit in some basic respects wherein both Loughren and RCA had borrowed from the prior art, but was radically different from the Loughren circuit in other respects. The princi-
1498 pal differences between Loughren's AGC circuit and that of the RCA bulletin were these:

(a) All the circuits illustrated, described, or suggested in Loughren's 1946 application used a diode rectifier as an AGC tube. The RCA circuit employed no such diode rectifier; its AGC tube was of the grid-controlled type. (PL-1, PL-22. 686)

(b) The circuit of Loughren's 1946 applicati , in all its variants, required that at least a portion of the video-amplifier load impedance be connected in a direct-current series circuit with the diode rectifier and the integrating load circuit. In the RCA circuit nc such connections were made; instead, the load impedance of the video amplifier

was connected to the grid of the AGC tube and was not connected in a direct-current series circuit with either the AGC tube or the integrating load circuit. (R. 639, 720, 726, 966, 1104)

(c) Loughren's circuit required, as a condition of successful operation, the use of a video signal voltage that was negatively polarized. The RCA circuit, on the other hand, utilized—and required—a video signal voltage of positive polarity. (R. 632, 742)

(d) The AGC system disclosed in Loughren's 1946 application used an a-c voltage supply which was part of his basic direct-current series circuit and acted as an "offset" to the d-c voltage on the video-amplifier load impedance. The peak magnitude of this a-c voltage in Loughren's system was critical; it had to be approximately equal to the d-c voltage that it was required to offset. In RCA's circuit, on the other hand, an a-c voltage was used, but its magnitude was not critical.
1499 Indeed, the only limiting factor on the size of that voltage was the insulation in the AGC tube. (R. 529-530, 533-534, 716-717, 743)

(e) Loughren's AGC circuit had an inherent characteristic of "loading" the video amplifier—*i. e.*, reducing the magnitude of the video signal voltage during periods in which the diode rectifier was conducting. (Stated in the conventional engineering parlance employed both by plaintiff's inventor-witness Loughren and defendant's expert witness Johnson, this loading action of the Loughren circuit on the video amplifier is equivalent to drawing energy from that amplifier to develop the AGC control voltage.) In RCA's circuit, no such inherent loading effect existed. (R. 319-321, 1402)

31. Within a few days after its publication, the RCA bulletin LB-769 came to Loughren's attention, and on March 24, 1949, Loughren sent a memorandum to one of plaintiff's principal officers, calling attention to the report and suggesting that the RCA circuit shown therein be examined in connection with the then-pending Loughren patent application, to determine whether the claims of the application would "dominate" the RCA circuit. Such an examination was made, the conclusion was reached that the Loughren patent application as it then stood did not "dominate" the RCA circuit, and steps directed to achieving such "domination" were initiated. A tentative claim was drafted on September 12, 1949, in language which plaintiff considered broad enough to describe or "read on" the RCA circuit as well as on its own circuit. This draft claim was identified by the same file number that plaintiff used for the original Loughren application, and was numbered "31", the next higher number in the sequence of claims submitted in such original application. Hence it
1500 appears that plaintiff for a time was considering submission of this broadened claim in the original Loughren application. Plaintiff soon decided, however, that a new patent application would be necessary to achieve its purpose; the next draft claim that plaintiff prepared, dated September 14, 1949, was numbered "1" and was assigned a new file number. Both draft claims were personally reviewed, and edited in his own handwriting, by the officer of plaintiff who had charge of its patent activities, and the second draft claim was, in addition, reviewed and approved by Loughren himself. One of the draft claims bears the handwritten notation "Broad"; the other has a marginal notation reading "Covers RCA keyed AGC system." (PL-21; PL-22; DX F-1; DX F-2; R. 271, 998-1018)

32. One of the handwritten changes in the second draft

claim, made personally by plaintiff's officer, consisted in striking from the text the word "amplifier" and substituting the broader term "repeater". This shows to be unfounded the contention, now made by plaintiff, that the word "repeater" in the claims in suit should be restrictively interpreted to mean only "amplifier". Plaintiff's choice of "repeater" in preference to "amplifier" was, it is plain, a conscious and deliberate broadening of the claim's scope. (DX F-2; R. 1018)

33. As already noted, every claim presented in the original Loughren application called explicitly for a direct-current series circuit including the rectifier, and the integrating load circurit, and "at least a portion" of the viedo-amplifier load impedance. In the revised claims which plaintiff drafted for the revised Loughren application, that plain and accurate description of Loughren's circuit
1501 arrangement was replaced with this recitation:

> ". . . a dircet-current series circuit including a rectifier *conductively connected* to said load impedance, an integrating load circuit for said rectifier and means for supplying a periodic potential to said series circuit . . ."

Thus, plaintiff edited out of its new claims the requirement, essential to successful operation of Loughren's circuit, that the direct-current series circuit must include "at least a portion of" the load impedance. (PL-2; DX F-2; PL-4, pp. 19-22)

34. The revised application was filed in the Patent Office on October 8, 1949. It contained, in addition to the fourteen claims previously allowed in the original application, five new claims drafted along the lines above indicated. The specification of the new application was revised, with respect to the original text, by editing out the passages referring to the necessity for including "at least a portion" of the video-amplifier load impedance in the

direct-current series circuit. Instead, that feature of Loughren's circuit was characterized, in the new application, as merely permissive or optional. The drawings of the original Loughren application were transferred, without alteration, to the revised application. (R. 1025, 1033; PL-4, pp. 19-22; and compare PL-2, p. 8, lines 10-13, and p. 9, lines 4-9, with PL-4, p. 8, lines 15-27, and p. 9, lines 12-21.)

35. The aforementioned differences between the specification of the revised Loughren application and that of the first Loughgren application constituted new matter for which no foundation existed in the original text. The feature that was characterized in the revised application as optional was not in fact optional or permissive in respect to the disclosure of the original application; it was, on the contrary, an essential requirement for suc-
1502 cessful operation of the circuits disclosed. (Plaintiff's expert witness so acknowledged.) The broader claims first submitted in the revised Loghren application were intentionally drafted by plaintiff to embrace concepts and circuit arrangements not disclosed or suggested in the original Loughren text. Their purpose, in fact, was to "dominate" the circuit independently developed by RCA and published by it in March of 1949. (R. 639, 966; PL-21, DX F-1)

36. In the course of the prosecution of the revised application, plaintiff succeeded in securing allowance by the Patent Office of four of the newly added broader claims, and the patent in suit hence issued on April 3, 1951, with eighteen claims—*i.e.*, the four new ones and the fourteen old claims brought forward from the old application. (None of those old claims is here alleged to be infringed.) During the prosecution of the revised application, plaintiff made representations as to the scope and meaning of the

new claims which defendant relies on as estoppels. These representations are dealt with hereinafter, in the findings which deal with the issue of infringement.

VII. Defendant's AGC Circuit Accused Of Infringement —Its Structure, Operation, And Origin.

37. Plaintiff has chosen defendant's television receiver model 16D21 as representative of the receivers accused of infringement. The full circuit diagram of that receiver is exhibit PL-7, and a simplified diagram of its AGC circuit is exhibit PL-23. The accused AGC system includes a video amplifier, which has a load impedance, identified on PL-23 as resistor R6. The AGC tube is of the grid-controlled type, identified on PL-23 as "1/2V9", and the video-amplifier load impedance is conductively connected to
1503 one of the grids of the AGC tube by a network of resistors, resulting in application to that grid of a positively polarized video signal voltage. An a-c voltage supply is connected to the plate of the AGC tube through a capacitor, thus applying thereto a train of positive voltage pulses that occur synchronously with sync pulses in the video signal voltage. The cathode-plate circuit of the AGC tube also contains an integrating load circuit across which the negatively polarized AGC control voltage is developed. The only direct-current series circuit in the accused AGC system is one which includes the cathode-plate path of the AGC tube and the integrating load circuit but does not include either the a-c voltage supply nor any part of the video-amplifier load impedance. (R. 398, 401, 565, 750-753)

38. While defendant's accused AGC circuit differs substantially from both plaintiff's Loughren circuit and that of the RCA bulletin, it has much more in common with the RCA circuit than with the Loughren circuit. Thus, it utilizes a grid-controlled tube rather than a diode, it oper-

ates on a positively polarized video signal voltage rather than a negative one, and it has no direct-current series circuit which includes the video amplifier load impedance. Further, the a-c voltage used in the accused circuit is about twice as great in peak magnitude as the d-c voltage on the video-amplifier load impedance and is not critical. All these characteristics represent respects in which the accused AGC system is like the RCA circuit and different from that of Loughren. Moreover, the accused circuit has the further difference from the Loughren circuit that its a-c voltage supply is not connected in a direct-current series circuit with the AGC tube and the integrating load circuit. To sum up, the accused circuit differs from that of plaintiff's Loughren circuit to an even greater
1504 degree than did the 1949 RCA circuit. (R. 437, 747-753, 1104-1105)

39. The record leaves no doubt that defendant's accused circuit was developed independently, without any assistance from, or indebtedness to, plaintiff. The first television receiver marketed by defendant, introduced to its distributors in September, 1948, and sold to the public shortly thereafter, contained an AGC circuit which, the expert witnesses for both parties agreed, was fully equivalent to the now-accused system in structure and operation, differing therefrom only in minor details of no significance for present purposes. That early circuit, moreover, was published by defendant in an instruction manual widely circulated in September, 1948. The earliest date on which plaintiff even claims to have supplied defendant with information on an AGC system was July, 1950, when its technical bulletin No. 7107 (Exhibit PL-19) was published. (R. 364, 818, 904, 1307)

VIII. Facts Bearing On The Defense That Plaintiff's Claims In Suit Are Invalid By Reason Of Prior Publication And Public Use.

40. The revised Loughren patent application of October 8, 1949, on which the patent in suit issued, was not a true "continuation" of the original Loughren application of January 25, 1946. On the contrary, it was drafted and filed by plaintiff for the conscious purpose of securing a broader patent monopoly than the disclosure of the original application afforded foundation for. This was done with the goal of "dominating" an AGC system, developed by RCA and first published in March of 1949, that was outside, and distinct from, the concepts and teachings disclosed and claimed in the original Loughren application of 1946. To provide a foundation for claims broad enough to "dominate" the RCA circuit, plaintiff wrote into 1505 the 1949 Loughren specification new matter not disclosed in the original 1946 application. All the claims here in suit were first presented in the 1949 revised application, and they all depend, as foundation for their asserted scope, upon the new matter added in 1949. Insofar as the claims here in suit are concerned, therefore, the patent in suit is entitled to no filing date earlier than that on which it was actually lodged in the Patent Office, namely, October 8, 1949. (See record references cited to findings Nos. 28-35, *supra.*)

41. The record establishes beyond doubt that the defendant developed, publicly used, and published, more than one year before October 8, 1949, a television AGC circuit that was fully equivalent, in structure and function, to its AGC circuit herein alleged to infringe. Specific facts concerning this prior knowledge, prior public use, and prior publication by defendant are as follows:

(a) Defendant's first commercial television re-

ceiver, designated Model 28F20, was engineered and ready for mass production by mid-September, 1948. (R. 907; DX C-9, DX D-1 to D-3)

(b) In that month, defendant conducted a school, at its place of business in Chicago, to familiarize the service managers of its various distributors with the circuit details and operation of its then-new Model 28F20 television sets, of which specimens had already been manufactured. The school was conducted in three sessions, the first of which ran from September 20 to September 24, 1948, and the second of which ran from September 27 to October 1, 1948. The service managers who attended these first two sessions, more than twenty in all, came from cities scattered throughout the United States and, with but a few exceptions, were employees of independent distributing companies
1506 rather than of defendant's subsidiaries. (R. 887, 898, 901; DX D-1 to D-3)

(c) Defendant by that time had already prepared and printed several hundred copies of a printed service manual for its television receiver Model 28F20, and that manual was used as the textbook for the aforementioned school. Copies therof were distributed to all of the persons who attended the school and were retained by them when, upon completing the course, they returned to their respective companies. That service manual contained a complete wiring diagram of defendant's television receiver Model 28F20, including the AGC circuit that formed a part thereof, and it also contained five paragraphs of descriptive text, captioned "Gated A.G.C.", which described the AGC circuit's operation. (R. 893, 904; DX C-9).

(d) During the school sessions which took place in September of 1948, specimens of defendant's television receivers, Model 28F20, were shown to the per-

sons attending the school and demonstrated to them. Servicing adjustments on various parts of the receiver were demonstrated and explained to the students; specifically, the operation of the AGC circuit was described by the instructor and its adjustment for proper operation was demonstrated. (R. 901-903; DX C-9)

(e) All of these events took place on or prior to October 1, 1948, and more than one year before the filing date of the application on which the patent in suit issued. (R. 898; DX D-1 to D-3)

42. Italian patent No. 429,415, which was a substantial counterpart of the original Loughren United States application, issued on January 24, 1948. The drawings and 1507 specification of that Italian patent constituted a disclosure of subject matter within the scope of the claims in suit, published more than eighteen months prior to October 8, 1949, the filing date of the application on which the patent in suit issued. (DX E)

IX. Facts Bearing On The Defense That Plaintiff's Claims In Suit Are Invalid For Want Of Invention Over The Prior Art.

43. Defendant contends that the claims in suit, if interpreted broadly enough to embrace the AGC circuit herein alleged to infringe, are invalid for want of invention over the prior art, even if such claims were entitled as a matter of law to the January 25, 1946, filing date of the original Loughren application. This contention rests upon the following grounds:

(a) That the claims in suit, so construed, "read on", and are hence anticipated by, the disclosure of the Hardwick U. S. patent No. 2,307,218, issued in 1943;

(b) That the claims in suit, so construed, define subject matter that was obvious, and hence non-inventive, in view of the disclosure of Beers U. S. patent No. 2,120,999, issued in 1938; and

(c) That the claims in suit, so construed, define subject matter that was obvious, and hence non-inventive, in view of the teachings in Blumlein U. S. patents Nos. 2,307,375 and 2,224,134, respectively issued in 1943 and 1940, and Holmes U. S. patent No. 2,230,295, issued in 1941. (DX C-1, Tabs 1-3 and 5-6)

44. If given the broad interpretation plaintiff contends for, the claims in suit do "read on" the AGC system shown and described in the Hardwick patent. Defend-
1508 ant's expert witness applied the claims in suit to the Hardwick disclosure and found each element thereof present in Hardwick's circuit. This testimony, which the Court believes, was strongly corroborated by plaintiff's written admission, made before the present litigation started, that "We cannot question but that the Hardwick patent does accomplish generally the same result as Loughren." Plaintiff's expert witness attempted on direct examination to distinguish the claims in suit from the Hardwick disclosure, but his testimony to that effect was effectively negated on cross-examination. From his testimony as a whole, it is plain that such distinctions as do exist between Hardwick's disclosure and Loughren's AGC circuit relate to features not recited in the claims in suit and hence not available as grounds for saving the claims from anticipation. (R. 802-808, 1181-1197, 1210-1212, 1475-1503; DX F-6)

45. The Hardwick patent was of record in the Patent Office but was never applied against the Loughren claims by the examiner. Any presumption of validity to be gathered from that fact, however, has been sufficiently

overcome by the evidence in this record. Moreover, there is reason to believe from the Patent Office file that the examiner's failure to rely on Hardwick may have stemmed from plaintiff's representation that the term "rectifier" as used in the claims in suit did not embrace grid-controlled tubes. The AGC tube in the Hardwick cicruit was of the grid-controlled type. (R. 800, 939-940; PL-4, pages 53-54)

46. Given the broad interpretation which plaintiff insists the claims in suit should have (and must have if they are to cover defendant's accused AGC circuit), they are anticipated by the disclosure of the Hardwick patent and define no invention thereover.

1509 47. The Beers prior-art patent discloses an AGC circuit in the environment of a sound radio receiver. Some circuit changes would be necessary to adapt the Beers circuit for use in a television receiver, but such modifications were of a known and obvious character well within the skill of the art at the time Loughren's work was done. (DX C-1, Tab 1; R. 1456-1457)

48. The similarities between the Beers circuit and defendant's accused AGC circuit are striking. In both circuits a grid-controlled tube is used as the AGC tube; in both an a-c voltage is applied to the plate of the AGC tube, the signal voltage being applied to its grid; and similarly the AGC control voltage is developed in both instances across an integrating load circuit connected in the cathode-plate circuit of the AGC tube. The so-called "voltage offset" function accomplished by the a-c voltage supply in defendant's accused AGC circuit is identical to the corresponding function of the a-c voltage supply in the Beers circuit. (R. 811-816, 1400-1401)

49. The Beers patent discloses an AGC circuit having all of the structural elements of the claims in suit except

for the "direct-current electron tube repeater" which the claims call for. The claims in suit cannot be deemed patentable on the basis of that distinction, however, because the use of such a device was old in AGC circuits long before Loughren, and it performs in Loughren's circuit only its old and customary function. An example of a prior-art AGC circuit thus making use of a "direct-current electron tube repeater" is that shown in Fig. 6 of the Blumlein prior-art patent No. 2,307,375. (R. 816, 1451-1455, 1458)

50. Apart from the matter of the repeater just alluded to, plaintiff's expert witness was unable to distinguish
1510 the accused AGC circuit from that of Beers except by reliance on the fact that Beer's circuit was specifically disclosed in the environment of a sound radio receiver rather than in a television set. Plaintiff's expert witness admitted, moreover, that the modifications necessary to adapt the Beers circuit for use in a television set were of conventional nature and known to skilled workers in the prior art. (R. 1446-1447, 1457-1458)

51. The claims in suit, if construed broadly enough to embrace defendant's accused AGC circuit, define nothing inventive over the teachings of the Beers patent. It is significant in this connection that the Beers patent was not of record in the Patent Office history of the patent in suit. (PL-1.)

52. The Blumlein prior-art patent No. 2,307,375 discloses a television-receiver circuit together with several different AGC arrangements, any of which, the specification teaches, may be used with the basic receiver circuit. Among the alternative AGC circuits thus referred to by Blumlein in the '375 patent is the one shown in Fig. 5 of the earlier Blumlein patent No. 2,224,134. When the circuits of these Blumlein patents (both of which were Patent Office references) are thus connected together, an AGC system

results that is essentially like the defendant's accused AGC circuit, save for one difference: In the Blumlein circuit the a-c voltage supply is connected to a grid of the AGC tube, whereas in defendant's circuit the a-c voltage supply is connected to the AGC tube plate. Defendant points out that the Holmes prior-art patent No. 2,230,295 (not a Patent Office reference) taught that the a-c voltage supply in the AGC system could be applied either to the plate or to a grid of the AGC tube. If the Blumlein AGC circuit of the '375 and '134 patents is modified by shifting the a-c voltage supply from the grid to the plate 1511 of the AGC tube, the resulting circuit is almost identical to defendant's AGC system. Defendant's expert witness testified that in his opinion persons skilled in the art would be taught by the Holmes patent that the Blumlein circuit could be thus modified, and that defendant's accused AGC circuit could therefore be fairly deemed to be wholly derived from prior-art sources. Plaintiff's expert witness disagreed with that view. Considering the testimony of both men, their cross-examination, and the degrees of credibility they respectively inspired, the Court finds the opinion of defendant's expert witness to be the more worthy of belief, and it is accordingly adopted as the finding of the Court. (R. 777-792, 1216-1256, 1287-1293, 1335-1337, 1400-1402.)

53. Plaintiff, seeking to discount the force of the Blumlein, Hardwick, and Holmes circuits as prior art, makes the point that they were designed for use with positive-modulation television signals. This is true; however, as plaintiff's expert witness admitted, those self-same circuits would also work on negative-modulation signals. Moreover, the prior-art literature and the testimony of the expert witnesses establish that the characteristics of both types of television signal were well understood in the art, years before Loughren's work was done. It appears that prior

knowledge respecting either system was drawn upon routinely by skilled workers in designing apparatus for use with the other system. This is strongly confirmed by the fact that the Patent Office freely cited and relied on positive-modulation circuits as pertinent prior art against the Loughren claims, coupled with the significant fact that plaintiff never even suggested to the Patent Office that the prior art could be validly distinguished on the basis of the modulation type for which it was designed. Plaintiff's present contention in this regard is an afterthought lacking in merit. (R. 275, 333, 802, 1290-1291, 1488.)

1512 X. Facts Bearing On The Infringement Issue.

54. Resolution of the infringement issue involves determination of these two underlying factual questions:

(a) Do the claims in suit embrace, within their literal scope, the defendant's AGC circuits?

(b) Are the AGC circuits disclosed in the patent in suit and defendant's accused AGC circuit substantially identical with respect to means employed, mode of operation, and result obtained?

With those factual questions answered, the presence or absence of infringement can be determined by applying established legal principles to the facts.

55. With respect to the literal scope of the claims in suit, the parties are in controversy concerning the meaning of the word "rectifier" which appears as a major element in all of the claims in suit. Plaintiff contends that this term should be interpreted broadly enough to include grid-controlled tubes; defendant insists that it should be limited to tubes of the diode type.

56. The evidence is in sharp conflict as to what "rectifier" means as a technical term in the art. Plaintiff's

expert witness testified that the term "rectifier" is commonly used in a sense broad enough to include the grid-controlled AGC tube in defendant's circuit, in which a signal voltage is applied to the grid but no current flows through the grid circuit. Defendant's expert witness, on the other hand, attested that the term "rectifier" may properly be used only with respect to a device which conducts current more readily in one direction than in the other and hence does not include the grid-controlled tube used in defendant's AGC circuit, in which the grid conducts no current in either direction. Each of the 1513 expert witnesses referred to technical publications that supported his own opinion, and those publications are of record as exhibits. (R. 737-738, 749, 982, 985; PL-25-31; DX B-1; DX G-1)

57. The patent in suit and its file history provide the following evidence that the term "rectifier," as used in the patent in suit, was meant in its narrow sense, limited to the diode type of tube:

(a) No kind of rectifier except a diode rectifier is shown in any of the drawings of the patent in suit nor described or even alluded to in the specification. (PL-1.)

(b) In both the specification of the original Loughren application filed in 1946 and all the claims that were ever presented therein, it was explicitly stated that the "rectifier" must be connected in a direct-current series circuit with the integrating load circuit and at least a part of the video-amplifier load impedance. This language plaintiff's expert witness acknowledged to be specifically directed to the diode-type rectifier. If "rectifier" had been meant in the broad sense plaintiff now contends for, the language used in the specification would have been inapt. Loughren himself incidentally, participated person-

ally in the drafting of the original 1946 patent application. (R. 361, 639, 1351-1352; PL-2.)

(c) During the prosecution of the claims in suit, the patent examiner rejected them on the basis of the prior-art AGC circuit of the Blumlein patent No. 2,307,375, in which the AGC tubes were of the grid-controlled type. With emphasis by underlining, plaintiff assured the Patent Office that the Blumlein prior-art circuit was not a proper basis for rejecting the claims, for the reason that Blumlein's AGC tubes
1514 "do not constitute a rectifier device." Following that representation, the examiner withdrew the Blumlein '375 reference and allowed the claims. (PL-4, pp. 53-54.)

58. After weighing the conflicting testimony of the witnesses and considering carefully all the other evidence on the subject, the Court is convinced, and accordingly finds, that the word "rectifier," in the claims in suit, means a diode device and does not embrace within its scope a grid-controlled AGC tube such as defendant employs in the accused AGC circuit. In finding thus, the Court is influenced by the fact that the testimony of defendant's expert witness is entirely harmonious with the position plaintiff itself took prior to the patent's issuance, whereas the testimony of plaintiff's expert is squarely inconsistent with plaintiff's *ante litem* position.

59. Another contested issue involving the language of the claims in suit is whether they call for a circuit in which "means for supplying a periodic potential" (*i.e.*, an a-c voltage supply) is part of a direct-current series circuit that includes also a "rectifier" and an integrating load circuit. Plaintiff admits that claim 4 in suit is thus restricted but contends that claims 1 and 2 in suit are not. (Pl. Br., pp. 28-30.)

60. Plaintiff's contention with this regard is inconsistent with the plain meaning of the words and punctuation used. Both claims 1 and 2 call for "a direct-current series circuit including a rectifier . . . , an integrating load circuit . . ., and means for supplying a periodic potential to said series circuit." In other words, each of claims 1 and 2 calls for a series circuit the components of which are recited in the customary serial form, to-wit: A, B, and C. Plaintiff would read the recitation of
1515 the third element—*i.e.*, the "means for supplying a periodic potential"—as an independent element not necessarily a part of the series circuit. But this reading is plainly not the correct one. To accept it would leave the recitation of the series-circuit components in the awkward form "including A, B," with no conjunction joining them. Had the meaning plaintiff now contends for been really intended by the claim draftsman, the language used would have been: ". . . a direct-current series circuit including a rectifier . . . *and* an integrating load circuit . . .; and means for supplying, etc." It is also noteworthy that the two elements of the respective claims that admittedly are independent—namely, the "repeater" and the "series circuit"—are separated by a semicolon, whereas the draftsman used a comma to separate the recital of the "integrating load circuit" from that of the "means for supplying a periodic potential." (PL-1, Cls. 1 and 2.)

61. Any remnant of doubt that the language and punctuation of claims 1 and 2 do require a circuit in which the a-c voltage supply is a part of the same direct-current series circuit that includes the rectifier and the integrating load circuit is swept away by the file history of the patent in suit. Plaintiff therein, again with emphasis by underlining, told the Patent Office in unmistakable terms that claim 1 in suit demands an arrangement in which the "periodic potential supply means" (*i.e.*, the a-c voltage

supply) "forms a series element of a direct-current series circuit." This commitment by plaintiff applies to claim 2 as well as to claim 1, since the words of the two claims are identical in the passages under consideration. (PL-4, p. 54.)

62. From these facts it follows that all three of the claims in suit require by their explicit language an
1516 arrangement in which an a-c voltage supply is connected as a series element of a direct-current series circuit which also includes a rectifier and an integrating load circuit.

63. The question whether there is substantial identity between the AGC circuit, of the patent and defendant's accused AGC circuit, as to means employed, mode of operation, and result obtained, must be answered "No" on this record. There are certain similarities between the two circuits, but every feature that they share they have also in common with the prior art. Hence the similarities constitute no evidence of infringement. To the extent that the circuit of the patent differs from the prior art, it differs also, in like or greater degree, from defendant's circuit. The means employed in the two circuits differ substantially and the respective modes of operation are radically different. The results achieved, so far as they are similar, are like the results obtained with prior-art circuits. (R. 686, 791, 1400-1401, 1434-1443)

64. Notwithstanding the fact that defendant's accused AGC circuit does not have a "rectifier" in the sense that term is used in plaintiff's claims, and does not have an a-c voltage supply connected in the manner which the claims demand, plaintiff asserts that the claims should nevertheless be held infringed, by virtue of the doctrine of equivalents. That contention must be rejected. For one thing the lack of substantial identity between the two circuits as to structure and mode of operation compels the conclusion

that they are not equivalent as a matter of ultimate fact. Moreover the file history of the patent in suit, *i.e.*, the circumstances under which the claims were secured from the Patent Office, would make it inequitable to apply the doctrine of equivalents in this case. In arguing for allow-
1517 ance of the claims in suit over the circuit shown in Fig. 6 of the Blumlein '375 patent, plaintiff unequivocally and emphatically restricted the scope of the claims to exclude grid-controlled AGC tubes and to include only circuits in which an a-c voltage supply is connected as a series element of a direct-current series circuit which includes also a rectifier and an integrating load circuit. Having thus secured allowance of the claims in suit, plaintiff may not reverse its field and now repudiate the very representations on the strength of which the claims were granted.

65. Defendant's AGC circuit does not utilize any invention, if any there be, that was contributed to the art by the patent in suit.

Part II—Conclusions of Law.

1. This action charges defendant with infringement of claims 1, 2 and 4 of plaintiff's United States Patent No. 2,547,648. The Court has jurisdiction of the subject matter and the parties, and the venue is properly laid in this District.

2. The patent in suit No. 2,547,648, so far as it relates to claims 1, 2, and 4 in suit, was first applied for when patent application No. 120,404 was lodged in the Patent Office on October 8, 1949. That application was not a legal continuation of plaintiff's earlier patent application No. 648,287, filed January 25, 1946, and is not legally entitled to a 1946 filing date insofar as the subject matter of claims Nos. 1, 2, and 4 in suit are concerned, because those claims are based on new matter not disclosed in the 1946 applica-

tion and first presented to the Patent Office on October 8, 1949.

3. Plaintiff's claims in suit Nos. 1, 2, and 4 of patent No. 2,547,648 are invalid and void by virtue of United States Code, Title 35, § 102, because their subject mat-
1518 ter was published, and publicly used in this country, more than one year prior to October 8, 1949.

4. Plaintiff's claims in suit Nos. 1, 2, and 4 of patent No. 2,547,648 are invalid and void by virtue of United States Code, Title 35, § 102, because their subject matter was anticipated by the disclosure of Hardwick U. S. patent No. 2,307,218.

5. Plaintiff's claims in suit Nos. 1, 2, and 4 of patent No. 2,547,648 are invalid and void by virtue of United States Code, Title 35, § 103, because they define no patentable invention in view of the prior art represented by Hardwick U. S. patent No. 2,307,218, Beers U. S. patent No. 2,120,999, Holmes U. S. patent No. 2,230,295, and Blumlein U. S. patents Nos. 2,307,375 and 2,224,134.

6. Even if valid, plaintiff's claims in suit Nos. 1, 2, and 4 of patent No. 2,547,648 have not been infringed by defendant.

7. Plaintiff having failed to establish any cause of action against defendant, the action must be dismissed for want of equity and judgment entered in defendant's favor against plaintiff for defendant's legal costs as provided by law.

R. B. Austin,
Judge, U. S. District Court.

Dated: January 25, 1965.

1519 IN THE UNITED STATES DISTRICT COURT.

(Caption—59-C-1847)

FINDINGS OF FACT AND CONCLUSIONS OF LAW WITH RESPECT TO THE ANTITRUST ISSUES RAISED IN THE ANSWER AND COUNTERCLAIM.

Pursuant to Rule 52(a) of the Federal Rules of Civil Procedure, the court hereby makes the following findings of fact and conclusions of law:

I. The antitrust issues raised in the answer to this patent infringement suit and in the counterclaim for damages and injunctive relief were separately tried following the trial of the patent issues. Defendant in its answer asserted the affirmative defense that plaintiff was misusing its patents, including the patent in suit, in violation of public policy and the Sherman Act (15 U. S. C. §§ 1 and 2) and that it, therefore, came into this court with unclean hands and is therefore barred from receiving any relief in this action. Defendant also filed a counterclaim for damages and injunctive relief pursuant to Rules 13(a) of the Federal Rules of Civil Procedure, Section 1 and 2 of
1520 the Sherman Act (15 U. S. C. §§ 1, 2) and Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15, 26).

II. Defendant-Counterclaimant, Zenith Radio Corporation, is a corporation organized and existing under the laws of the State of Delaware with its principal place of business located at 6001 W. Dickens Avenue, Chicago, Illinois, and is now and has been continuously for more than 43 years last past engaged in the development for sale and use and in the manufacture, sale and use of radio apparatus and receiving sets, and since the advent of television, television receiving sets throughout the United States and in foreign commerce, and during said period

has built up a large volume of business in manufacturing and selling as the demand therefor has existed and will continue to exist, and in the shipment and sale of such apparatus in commerce between the various states of the United States and in foreign commerce, and said counterclaimant is now and has been engaged in said commerce during all of the period above stated and during all times material to this counterclaim.

III. Counterdefendant, Hazeltine Research, Inc., the party plaintiff in this suit, is an Illinois corporation owned and operated as a wholly owned subsidiary of Hazeltine Corporation, a New York corporation, engaged in the manufacture and sale of electronic equipment and devices. The parties stipulated that for the purposes of this litigation Hazeltine Research, Inc. and its parent, Hazeltine Corporation, would be considered as one entity operating as a patent holding and licensing company, engaged in the exploitation of patent rights in the electronics industry in the United States and in foreign countries. The gross income of the Hazeltine enterprises approximates $47,000,000 per year.

1521 IV. For many years plaintiff has accumulated a large number of patents, domestic and foreign, for use in its patent licensing business in the electronics industry. At the time of the filing of this suit Hazeltine had over five hundred patents and patent applications in its licensing portfolio.

V. Plaintiff's policy in licensing electronics manufacturers in the United States was to grant a so-called standard package license which conferred on the licensees for a five-year period freedom from any charge of infringement under all present as well as future Hazeltine patents issuing during the terms of the agreement. Royalties were required to be paid on the licensee's entire production whether its products employed any or none of the Hazeltine patents.

The license was in effect a covenant not to sue the licensee or its customers should Hazeltine decide within the license period that the manufacture and sale of any particular apparatus infringed upon any of its patent rights.

VI. Hazeltine filed numerous patent infringement suits against manufacturers who refused to sign its license agreement.

VII. Prior to the instant controversy, Zenith had the standard Hazeltine package license and in May of 1959, toward the close of the last five-year license period, Hazeltine requested that the license be renewed for another five-year period at the then package rate of $50,000 per year. Zenith refused contending that it did not require a license under any of the patents in the package and Hazeltine countered by asserting that Zenith was infringing at least four of the Hazeltine patents in the manufacture and sale of monochrome television receivers (at that time Zenith was not manufacturing color receivers). At the same
1522 time Hazeltine made an alternative proposal to Zenith, offering to grant a monochrome license in accordance with the following formula:

> Any one patent in the package would be licensed at 50% of the royalty rate for the entire package of over 500 patents and patent applications. Any two patents would be licensed at 80% of the package rate. Any three or more patents would be licensed at 100% of the package rate. Hazeltine reserved the right to sue for infringement of any patent not licensed. All licenses would otherwise be subject to all the terms and conditions of the standard package form of license and would require payment of royalties on all production during the five-year term of the license irrespective of whether any patent was employed or not. The license would not cover color television receivers.

Zenith refused to sign either of the proposed agreements and on November 20, 1959 the instant suit was filed.

VIII. With the suit on file and at issue, Hazeltine continued its attempt to persuade Zenith to sign the package license. During the course of discovery proceedings Hazeltine informed Zenith that in addition to the patent in suit, Zenith was infringing at least 9 designated Hazeltine patents and applications in the manufacture and sale of its color television receivers. The old form of standard package license under all the Hazeltine patents was again tendered to Zenith for signature and Zenith again refused to sign it.

IX. On April 11, 1962, Hazeltine submitted to Zenith a license proposal for color television which provided an annual royalty rate of $435,000 merely for the 9 patents asserted and an annual rate of $500,000 for a license under all of Hazeltine's patents and patent applications for color television. However, if the standard package license covering all of Hazeltine's patents, for monochrome as
1523 well as color, were signed, the maximum royalty rate would be $150,000, the same as the rate in the Hazeltine-RCA package license (later raised to $200,000). Zenith refused these proposals on the grounds that they were obviously designed to force Zenith to take the package license which it did not want or need; that Zenith could not place itself at a competitive disadvantage by taking a license under only 9 patents at $435,000 a year rather than signing the package license containing all Hazeltine patents at the package rate of $150,000 per year.

X. Hazeltine continued its efforts to persuade Zenith to sign the standard package license before this case could be brought to trial. In March 1963, as the case approached the final pre-trial conference, Hazeltine made the following proposal to Zenith:

> It grouped together the nine patents and one application which were claimed by Hazeltine to be employed in the manufacture of Zenith color receivers. It

placed a maximum royalty on this package of $275,000 per year but for color receivers only. For the entire package containing all of Hazeltine's then existing patents for color television, an annual maximum of $300,000 was set and for all present as well as future patents issued during the license period an annual maximum of $310,000 was demanded for color television alone.

In this same license proposal, Hazeltine offered its entire package of present and future patents, unspecified, for both monochrome as well as color receivers for an annual maximum of $200,000.

Under this proposal, a license could be taken, if desired, under only two of the ten patents asserted against Zenith's color receiver but it would bear an annual maximum royalty in excess of $200,000 and would license only color receiver production, whereas the entire package of over 500 patents and applications for both monochrome as
1524 well as color receivers would bear an annual maximum of $200,000. This proposal was obviously designed to persuade Zenith to sign the standard package license agreement which it was unwilling to do and presented to Zenith management the following alternatives:

1. Endure trials and possibly appeals on at least nine patents at a total estimated cost of over one million dollars, plus damages in the event any or all of the suits were lost.

2. Take a license under the package of ten patents and applications at a cost of $275,000 per year for color television, or a license under the entire package of existing Hazeltine patents for color television at a cost of $300,000 per year, or at a cost of $310,000 per year a license covering existing and future patents of Hazeltine for color tele-

vision for a five-year period. In each case Zenith would be obliged to make the royalty payment whether any of the patents licensed was used or not in Zenith's color receiver. This would still leave Zenith's entire monochrome production open to continuous attack by Hazeltine, and plaintiff's counsel had already claimed that Zenith's monochrome receiver infringed at least three patents in addition to the patent in suit.

3. Take a license for color television under two patents selected from the package of ten and pay over $200,000 per year, but this would expose Zenith's color production to the assertion of any or all of the color patents not licensed and would subject its entire monochrome production to the assertion of any of the hundreds of patents in the Hazeltine package.
4. Take the standard package license under all patents and patent applications of Hazeltine, present and future, for both monochrome and color television at an annual maximum of $200,000 per year.

1525 Over a five-year license period it would cost $500,000 to $550,000 more for a license under the small group of ten patents for color television alone than for the entire Hazeltine package covering over 500 patents and applications for monochrome as well as color television. In addition, the full package license would remove the risks of further protracted and expensive litigation or harassment whereas the more expensive license under less than the entire package would leave Zenith and its customers exposed to renewed charges of infringement based on any or all of the remaining hundreds of existing Hazeltine patents as well as all patents issuing during the term of the license. The only practical answer would be to accede to Hazeltine's demand and accept a full package license.

XI. Plaintiff's offer to license any one of its hundreds of patents for monochrome at 50% of the package rate, any two at 80% of that rate and any three or more at the full package rate was an attempt by economic coercion to force the taking of the package. This is clear from the fact that plaintiff had asserted that Zenith was infringing at least 4 patents in its monochrome receivers. Moreover, the reward demanded by plaintiff for a license under less than the full package of patents is in no way related to the quality of the patents since the price is determined solely by the number of patents chosen and most of the patents in the package are characterized by Hazeltine itself as "insignificant."

XII. In all of its proposals to Zenith, Hazeltine insisted as an alternative to litigation that Zenith for a period of five years pay royalties in large sums based on its entire production of receivers whether or not any Hazeltine patent was employed in any way in its products. Plaintiff thus insists that royalties be paid on admittedly unpatented apparatus.

1526 XIII. As of the date the trial began Defendant had been injured in its business and property as the proximate result of the acts and demands of Hazeltine, referred to above, in the amount of $50,065. Defendant has been forced to make expenditures of money and to use the time of its officers, employees, and counsel to defend against this patent infringement suit and by virtue of Hazeltine's threats of suits on other patents, defendant has been forced to expend substantial amounts of money to investigate the scope and validity of the patents asserted. The injury to Zenith's business was occasioned by the necessity that defendant make a choice among alternatives each of which had an adverse economic effect on its business. It was forced either to cease manufacturing and selling its television receivers, pay tribute with consequent increase in its

costs or incur the expenses incident to the defense of protracted patent litigation. Although defendant's choice determined the nature and amount of the resulting damages, it was the necessity of having to choose that occasioned the injury.

XIV. In its counterclaim Zenith also seeks damages and injunctive relief based on plaintiff's conspiratorial activities with foreign cartels or patent pools in England, Canada and Australia which have curtailed Zenith's export business.

The British Patent Pool.

XV. The dominant radio and electronics companies in Great Britain set up the British Patent Pool into which flow thousands of patents owned or controlled by the members and those affiliated with them in the plan. Among these companies are Electric & Musical Industries Ltd., General Electric Company, Ltd., Marconi's Wireless
1527 Telegraph Co., Ltd., Philips Electrical Ltd., Pye Ltd., Murphy Radio Ltd., Rank Cintel Ltd., Standard Telephone & Cables Ltd., Gramophone Co. Ltd., E. K. Cole Ltd. and Cossor Ltd. The Hazeltine inventions and patents have been funneled into the Pool pursuant to an agreement with General Electric Co. Ltd. and the share of the Pool's income allocated to these patents in split between General Electric Co. Ltd. and Hazeltine. Pursuant to this arrangement British inventions controlled by General Electric Co. Ltd. are licensed to Hazeltine for exclusive licensing use in its American territory and are included in its United States package licensing activities. The Hazeltine-General Electric Co. Ltd. exclusive agreements were specifically devised to get the Hazeltine patents into the British Patent Pool in a manner which would provide for G.E.C. maximum bargaining power vis-a-vis the other Pool members on the division of the Pool income.

XVI. Pursuant to these arrangements, General Electric Co. Ltd. on its own behalf and on behalf of Hazeltine entered into successive pooling arrangements with the other members of the British Pool wherein and whereby it was agreed that the Hazeltine patents along with the patents of all of the Pool members be licensed in the territory of Great Britain solely by the Pool and on terms and conditions determined by the members of the Pool. Each of the participating parties in all of the interrelated agreements, including Hazeltine by virtue of the exclusivity of its joint arrangements with General Electric Co. Ltd., contractually pledged that during the period of the agreements no license would be issued that would permit the export of radio and television receivers from the United States into the British market and that the only license employed by the Pool would be a standard package
1528 license limited to local manufacture. Hazeltine has been participating in this plan and arrangement since 1938, is currently participating in it and intends to continue its participation.

XVII. Hazeltine has had full knowledge of the various interrelated agreements under which the Pool operates and has operated and for the purpose and effect of the plan which is to protect the British manufacturers in the Pool against competition from television receivers made in the United States and other countries. Hazeltine contends that it has entered into these arrangements because in that manner it can obtain more income from its English patent properties than it could through its own individual effort.

XVIII. The Pool has always issued one for of license which, like the Hazeltine package license in the United States, covers all of the patents in the pool and requires payment of royalties on all of the licensee's production whether or not any of the patents are employed. The effect of this plan is to amass all of the patents for assertion

against anyone not licensed, to prevent importers or foreign manufacturers from entering the market and to preclude the possibility of any attack by the licensees on the validity of any one patent.

XIX. The policy of the Pool was early stated to be to cooperate in the division of territories provided by the plan and "not knowingly [to] assist any [American] company to sell in England under the protection" of the Pool patents apparatus manufactured in the United States and not licensed under the patents of the Pool's American participants. RCA and General Electric, like Hazeltine, for many years participated in the British Pool. How-
1529 ever, as the result of antitrust litigation brought by Zenith and by the Government, RCA and General Electric were forced to cease their participation in the plan.

XX. Initially the strength of the Pool was drawn from patents on radio receivers and with the advent of television, the power of the Pool became greater than ever. Color television is the most recent innovation in the home entertainment field and Hazeltine has now become an even more important factor in the British combination because of its color television patents which Hazeltine contends has given it a "dominating position" in the color television field.

XXI. For years Zenith made every effort to export home receivers to distributors and dealers in the English market. On each occasion, however, the Pool threatened its distributors until they ceased buying Zenith products and no substantial trade outlets could be found which would risk handling the line since the Pool would not license the sale of imported merchandise.

XXII. As a part of the settlement of antitrust litigation brought against RCA, General Electric and Western Electric, Zenith was in 1957 granted royalty-free world-

wide rights under the inventions and patents of these companies and began to ship radios to the British market. The Pool could not assert any of these rights to prevent importation and since all basic radio patents have expired, Zenith had been able for the first time to export to and sell its radio receivers in the English market. This is not true of television apparatus however. The Pool is armed with thousands of patents from the Pool members including the British counterparts of patents asserted by Hazeltine against Zenith in the United States. Zenith has been constrained from entering the British television market by the threat of the assertion against it of pooled patents,

although Zenith has successfully engineered sets for
1530 the British market and has shipped some to its English distributor with the hope that the injunctive relief sought in this suit would be granted and business on a commercial scale could be conducted.

XXIII. The manufacture in the United States of receivers for sale to exporters here or directly to importers in England (or in Canada and Australia where corresponding patent pools are operating) would risk further charges by Hazeltine of infringement of the United States patents asserted against Zenith here and Hazeltine, by viritue of its exclusive arrangements with the English companies, is contractually unable to grant a license to manufacture in the United States for export to and sale in England under the British counterparts of its domestic patents. Hazeltine's United States package license expressly states, in compliance with the restrictions involved in the pooling arrangements, that no license is granted under any patent rights of countries foreign to the United States.

XXIV. Hazeltine has always told its licensees in the United States that as a matter of policy it would never collect a second royalty on sets exported to foreign countries "where Hazeltine had complete control over its

patent situation" but that with respect to England, Canada, Australia and New Zealand, where Hazeltine patents are included in an industry-wide pool, the American licensees would have to make their own arrangements with such Pools.

The Patent Pool in Canada.

XXV. The patent pool existing in Canada is called Canadian Radio Patents, Limited. This organization was formed in 1926 by the General Electric Company of the United States through its subsidiary, Canadian Gen- 1531 eral Electric Co. and by Westinghouse, through its subsidiary, Canadian Westinghouse. The shareholders of Canadian Radio Patents Limited are Canadian General Electric, Canadian Westinghouse, Standard Radio Mfg. Corp. Ltd., the Canadian subsidiary of Philips of Holland, Canadian Marconi and Northern Electric (an affiliate of AT&T and Western Electric). The Pool has been largely made up of Canadian manufacturers (most of which are subsidiaries of American companies) who were and are competitors of Zenith with respect to sales sought to be made in Canada. The Pool for many years has had the exclusive right to sub-license not only the patents of the member companies but also the patents of Hazeltine, RCA and a number of other foreign companies. Since 1943 Hazeltine has been an active participant in the activities of the Pool and has been receiving a substantial share of its profits. The Hazeltine patents go into the pool pursuant to an exclusive license agreement between Hazeltine and Canadian Radio Patents Limited which grants to the Pool the right to include Hazeltine's Canadian patents, present and future, in its licensing and litigation activities. This arrangement has been extended to a date beyond the filing of the instant counterclaim.

XXVI. The organization, purposes, and functions of the

Canadian Pool are, in principle, identical to those of the English Pool. Approximately 500 patents are amassed for licensing and the only form of license available is strictly limited to manufacture in Canada. It is also a package license under all patents in the Pool and all patents issued during the term of the license. The chief purpose of the Pool is to protect the manufacturing members and licensees from competition by American or other foreign companies seeking to export their product into Canada.

1532 XXVII. The Pool's campaign against importation of radio and television receivers from the United States is highly organized and effective. Patent agents, investigators and agents of the conspiring companies as well as the Canadian manufacturers and distributors trade associations at the behest of the Pool have systematically policed the marked in order to locate and stop the sale of imported receivers and have immediately attacked by infringement suit or threat thereof any dealer found to be selling imported receivers. Warning notices addressed to importers, vendors and users of radio and television receivers advise the trade and the public that only the products of certain named local manufacturers are licensed by the Pool under "basic patents" and that even "users" of unlicensed products are subject to suit on account of patent infringement. Many advertisements run by the Pool went much further. They contained disparaging statements about imported receivers to the effect that they were cheaply made, unsatisfactory in operation, caused fires and were dangerous to use because of "shock hazard."

XXVIII. Mass attacks in the form of infringement suits were made on dealers found to be selling imported American made radio and television receivers. Suits or the threat of suits effectively prevented dealers from handling American made sets.

XXIX. For many years Zenith attempted to set up distribution for its products in Canada but in very instance where a Canadian distributor began to sell Zenith products he was warned by the Pool to stop and return the merchandise or face expensive infringement litigation. To ward off these attacks Zenith attempted to get a license from the Pool, but in every instance it was advised by the Pool manager that importation would not be permitted and, only local manufacture would be licensed.

1533 XXX. As a part of the settlement in the Zenith litigation against RCA, General Electric and Western Electric which involved the activities of the Canadian patent pool, Zenith obtained world-wide rights under the patents of the defendants and having obtained these and other patent licenses permitting importation into Canada, Zenith began late in 1958 to export to and sell in Canada its radio and television products through its Canadian subsidiary, Zenith Radio Corporation of Canada. The manager of the Pool, Brian McConnell, investigated the matter and informed Zenith that in order to continue this business in Canada, Zenith would be required to sign the Pool's standard package license which did not permit importation and that Zenith would have to manufacture in Canada any products it intended to sell there. The Pool manager further informed Zenith that it was infringing at least one of Hazeltine's Canadian patents and that Hazeltine's patents, as well as all of the other patents in the Pool, with the exception of those owned by Westinghouse and General Electric Company, could not be licensed for importation. With respect to the latter two companies, McConnell stated that they had instructed the Pool not to refuse to license their patents for importation. The notices to "importers, vendors or users of radio and television receivers" warning them not to purchase imported sets continued to be run by the Pool despite protests by

Zenith. Shortly after the aforesaid demand made on Zenith by the manager of the Canadian Pool, the instant suit was filed.

XXXI. Hazeltine before entering into its exclusive arrangement was fully aware of the purpose and the policy of the Pool to prevent the export of American-made receivers into Canada and has worked very closely with Canadian Radio Patents Limited in its licensing activities and
1534 its campaign against importation from the United States.

XXXII. The proofs establish as a fact that in the circumstances of this case the Canadian Patent Act does not require the Pool to refuse to license importation, as contended by plaintiff. Nor does the Act penalize in any way a patentee who licenses for importation where, as in this case, there is being carried on extensive manufacturing in Canada under its patents.

The Australian Pool.

XXXIII. The dominant electronics company in Australia and its controlled territory is and for many years has been Amalgamated Wireless (A'sia) Limited (referred to as AWA). A number of the same companies involved in the English and Canadian cartel arrangements set up a patent pool in Australia identical in principle and purpose to the British and Canadian Pools. The patents of all of the conspiring companies funnel into the Pool which is known as Australian Radio Technical Services and Patents Company Pty. Limited (commonly called ARTS). The patents flow into ARTS through AWA, Standard Telephone and Cables Pty. Ltd., N. V. Philips Gloeilampenfabrieken, Electric and Musical Industries Ltd. (owning Marconi's and other rights for Australia), Pye Ltd. and Neutrodyne Proprietary Limited. Neutrodyne is a con-

trolled subsidiary of Hazeltine; the latter company owns seventy percent of its stock.

XXXIV. Under an exclusive license agreement dated September 11, 1928, but still in full force and effect, Neutrodyne is authorized to place all inventions and patents of Hazeltine into the Australian Pool and is required to see to it that all of the requirements, restrictions and provisions of the standard package license of Hazeltine are con-
1535 tained in any pooling license issued thereunder. Sub-licensing rights, existing and future, under all of Hazeltine's inventions have been granted the Australian Pool under this arrangement for 35 years and have been the subject of the only form of license agreement issued by the Pool, a standard package license not referring to any particular patent or invention but to all of the rights of all the conspiring companies. A standard Pool license imposes the restrictions necessary to effectuate the division of territories involved in the over-all arrangements. It requires the licensee to agree not to export or import or sell or offer for sale in Australia any radio or television receiving apparatus not manufactured in Australia. Hazeltine has been fully aware of the Pool's plan and policy not to license for importation and has cooperated with and approved the operation of the Pool with respect to all the Hazeltine Australian patents.

XXXV. The standard package form of Hazeltine license covering all patents subject to licensing by the Pool and requiring royalty payment whether or not any such patent is used in the licensed apparatus, is employed by each Pool referred to in these findings and is also used by Hazeltine in the United States in order to prevent attacks by licensees on any of the patents of the participating companies in any of the markets covered by these findings.

1536 Damages Sustained by Zenith.

XXXVI. The foreign commerce of Zenith has been drastically curtailed by the patent Pools in England, Canada and Australia. The damages Zenith has sustained were estimated by experienced officials of Zenith, thoroughly familiar with the business problems and sales potentials in the markets involved. They determined the approximate damages sustained by a thorough study of each of the markets involved and all relevant factors including tariffs, shipping costs and manufacturing problems. Zenith's foreign commerce has been damaged by the Pools in the following amounts during the 4-year statutory damage period:

Canada	
Television	$5,826,896
Radio	470,496
England	
Television	8,079,859
Radio	1,169,067
Australia	
Television	625,786
Radio	66,769
Tital	$16,238,872

1537 Conclusions of Law.

1. The court has jurisdiction to determine the antitrust issues under the provisions of the Act of Congress approved July 2, 1890, entitled "An Act To Protect Trade and Commerce Against Unlawful Restraints and Monopolies," commonly known as the Sherman Act.

2. Plaintiff's demands on defendant coupled with the bringing of this suit and the threat to bring other suits

on other patents constitute an illegal effort to coerce Defendant into signing the Hazeltine package license.

3. The policy of plaintiff, reflected in the demands made on defendant and action taken against it, was to grant no license unless under all of its hundreds of patents for a fixed royalty, is one of unlawful coercion contrary to public policy.

4. The reward sought by plaintiff from defendant for inventions to be licensed in no way related to the quality of the individual patents and under the package license each patent drew strength from the others, thus unlawfully extending the monopoly of each.

5. Plaintiff's offer to license its patents individually but at royalty rates far in excess of the package rate was never an alternative to its controlling policy to grant defendant a license only under all of its patents. Rather, it was proposed by Hazeltine in the later stages of its negotiations in the instant case to cloak the harshness of the original demand by seemingly meeting the request of defendant in that regard. Although it may be said that the Hazeltine proposals onthe surface were offers to treat of individual patents, the design was quite apparent—
1538 to force by unlawful coercion the acceptance of unwanted patents. This constituted an illegal extension of the patent monopolies. Whatever may be the asserted reason or attempted justification of Hazeltine, its efforts to compel defendant to accept a package of patents involved the use of one patent or group of patents as a lever to compel the acceptance of a license under others. Such a licensing scheme under applicable decision of The Supreme Court is illegal and constitutes a misuse of the patents involved.

VI. There is a further feature of Plaintiff's licensing practices that in and of itself constitutes an illegal attempt to extend the patent monopolies. The license agreement,

whether it be under a single patent or under Hazeltine's entire patent package, requires the payment of royalties in large sums for a period of five years on the entire production of the licensee whether or not any licensed patent is employed in any way in the licensee's products. Plaintiff's demands that royalties be paid on admittedly unpatenter apparatus constitute misuse of its patent rights and plaintiff cannot justify such use of the monopolies of its patents, by arguing the necessities and convenience to it of such a policy. While parties in an arms-length transaction are free to select any royalty base that may suit their mutual convenience, a patentee has no right to demand or force the payment of royalties on unpatented products.

VII. The defense of misuse asserted by defendant is a valid one.

The Patent Pools.

VIII. Every act in furtherance of a general plan to restrain trade and commerce, foreign or domestic, in violation of the Sherman Act, is illegal regardless of whether such act or acts when standing alone and absent conspiracy could be found to be legal.

1539 IX. It is fundamental that an unlawful conspiracy may be and often is formed without simultaneous action or agreement on the part of conspirators. Acceptance of an invitation to participate in a plan, the necessary consequence of which, if carried out, is to restrain commerce, is sufficient to establish a conspiracy under the Sherman Act. Knowledge of a scheme that illegally restrains trade and participation in the plan with such knowledge is all that is required to establish a conspiracy under the antitrust laws and prior agreements need not be shown to have been made between each and all of the conspirators in order to establish a violation of the Sherman Act.

X. The combinations represented by the patent pools in

Canada, England and Australia had as their express purpose the prevention of importation into those markets of radio and television apparatus made in the United States and other countries. Hazeltine knowing of the restrictions against imports imposed by those Pools nevertheless chose to permit its patents to be used in furtherance of the scheme and thereby obtained a substantial share of the Pool's income. It thereby became a co-conspirator and legally liable for all the acts of the Pools and its members performed in furtherance of their patent licensing plan to divide markets and prevent competition from imported sets.

XI. Hazeltine's method of placing its patents in the foreign pools—the use of exclusive license agreements either directly with the Pool as in Canada or through a pool member, as in England, or through a subsidiary, as in Australia—is the traditional means employed in the formation of illegal cartels and it is no defense to say that the particular exclusive licenses to which Hazeltine was a party did not in and of themselves impose the illegal restriction. The character and effect of a conspiracy are not
1540 to be judged by dismembering it and viewing its separate parts but only by looking at it as a whole.

XII. Hazeltine's defense that it had no intent to restrain trade and that it participated in the Pools for business reason has no legal validity. If good business reasons and expressions of good intent would serve as a defense for restraining trade, the Sherman Act would be rendered impotent and would afford no aid to the free flow of commerce.

XIII. Hazeltine's claimed defense that conspiracies by American companies with companies abroad are governed solely by foreign law and are not violative of the Sherman Act has no legal validity. It is well established that a conspiracy to restrain the domestic or foreign commerce of the United States to which any American company is a party violates the Sherman Act irrespective of the fact that the

conduct complained of occurs in whole or in part in foreign countries.

XIV. By virtue of its arrangements in connection with the Pools in Canada, England and Australia, Hazeltine has violated Section 1 of the Sherman Act.

XV. Counterclaimant has established that it has been injured in its business by virtue of the unlawful conspiracy and acts performed in furtherance thereof. As a co-conspirator Hazeltine is liable for those damages.

XVI. Counterclaimant is entitled to the injunctive relief sought in the counterclaim.

R. B. Austin,
Judge, U. S. District Court.

Dated: January 25, 1965.

IN THE UNITED STATES DISTRICT COURT.
(Caption—59-C-1847)

PLAINTIFF'S PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW WITH RESPECT TO THE DEFENSE OF MISUSE AND DEFENDANT'S COUNTERCLAIM UNDER THE ANTITRUST LAWS.

Pursuant to Rule 52(a) of the Federal Rules of Civil Procedure, the Court hereby makes the following Findings of Fact and Conclusions of Law:

FINDINGS OF FACT.

Jurisdiction and Parties

1. Defendant, Zenith Radio Corporation (Zenith) has asserted as an affirmative defense to the claim of Plaintiff, Hazeltine Research Inc. (Hazeltine) for infringement of the patent in suit, Hazeltine's alleged misuse of its patents by mandatory package licensing, thus rendering Hazeltine's patents, including the patent in suit, unenforceable.

2. Zenith has also asserted as an affirmative defense to Hazeltine's claim for infringement of the patent in suit the alleged violation of the Antitrust Laws (Sherman Act, Title 15, U. S. Code, Sections 1 and 2) by Hazeltine and its parent Hazeltine Corporation (H. C.) in the licensing of the latter's foreign patents. That defense was stricken by the Court on motion of Hazeltine.

3. Zenith has counterclaimed for injunctive relief from, and for damages it claims to have suffered from, the alleged violation of the Antitrust Laws by Hazeltine and H. C., under the provisions of Title 15, U. S. Code, Sections 16 and 26 (The Clayton Act).

4. This Court has jurisdiction over Zenith's Counter-

claim as a permissive counterclaim under the provisions of Rule 13(b) of the Federal Rules of Civil Procedure.

5. Zenith, a corporation of Delaware, has its principal place of business in Chicago, Illinois and, during all the times material here, has been a large manufacturer, *inter alia*, of radio and television receivers which it has marketed in interstate and foreign commerce.

6. Hazeltine, a corporation of Illinois, also has its principal place of business in Chicago, Illinois and was organized in 1946 as a wholly-owned subsidiary of Hazeltine Corporation (H. C.), a corporation of Delaware, having its principal place of business in New York, New York. Hazeltine is engaged solely in research and development work in the field of radio and television receivers; in the granting and administering of nonexclusive, nondiscriminatory licenses to all domestic manufacturers of television receivers under its United States patents resulting from its research and development work and that of its parent H. C.; and in rendering engineering assistance to such licensees. Its gross income for 1962 (other than investment income) was approximately $500,000. Hazeltine is not a manufacturer of radio or television receivers.

7. H. C. is engaged solely in research, development, and manufacturing of military electronics equipment very different from radio and television receivers. It is not a manufacturer of radio or television receivers but owns the foreign patents which are counterparts of the United States patents owned and administered by Hazeltine and has granted licenses under such foreign patents to concerns in their respective countries.

8. It is stipulated that, for the purposes of this Action, Hazeltine and H. C. may be considered a single legal entity to avoid the issue of whether or not it is appropriate to "pierce the corporate veil", but it is proper to consider the separte and unrelated activities of the two companies separately.

Hazeltine's Domestic License Practices

9. Prior to about 1955, Hazeltine owned a number of patents useful in radio and television receivers and granted licenses to manufacturers under both groups of patents. About 1955, substantially all important patents applicable to radio receivers expired and Hazeltine no longer collected royalties on such receivers.

10. Until about 1958, Hazeltine owned a group of patents useful in television receivers, at least one of which was used in substantially all receivers and was held by this Court to be of a basic character. Because of this fact, up until that time Hazeltine had never had a request from a licensee or a prospective licensee for a license under less than its entire group of patents. Television receiver manufacturers preferred a license under the group of patents because it provided them complete freedom of design under Hazeltine's present and future patents for both monochrome and color receivers.

11. In 1958, the foregoing basic patent expired and Hazeltine no longer had any patent that could not be designed around. As a consequence, it voluntarily offered licenses under a small group of patents then in current use in television receivers, either individually or as a group. The Form 918 license was adopted at that time to comprise the "boiler plate" of license agreements with television receiver manufacturers, but it was the practice to tailor the license to the individual requirements of each licensee by the use of modifying letters.

12. This offer of licenses on individual patents was made not only to new licensees but was voluntarily made to then current licensees under the Hazeltine group of patents, thereby permitting them to reduce their contractual royalty obligations. As a result, at the time of the trial of the infringement action, the great majority of the television

receiver manufacturers, including Magnavox, Sylvania, Warwick (Sears Roebuck), Wells Gardner (Montgomery Ward), and Westinghouse, had taken licenses under one or two patents, including the patent in suit, while such companies as RCA and Admiral had elected to continue with licenses under the group of patents.

13. Hazeltine never refused to grant a license to any radio or television receiver manufacturer under any one or more of its patents nor did it ever demand that any such manufacturer accept a license under its entire group of patents or accept its printed form of license, such as Form 918, without modification.

14. While the Hazeltine Form 918 license provides as a royalty base the entire sales of the licensee of apparatus of the type licensed, Hazeltine has never demanded that any manufacturer not using any of its patents accept such a license and no such manufacturer has so accepted such a license.

15. The royalty rate specified in the Hazeltine Form 918 license is 0.95% of the manufacturer's selling price (less specified deductions) on monochrome television receivers and 1.35% on color television receivers. This license form was adopted in 1958 when the only color television receiver manufacturer was RCA, which was producing only a very small quantity of such receivers.

16. About 1958, when Hazeltine decided to take the initiative by offering licenses under individual patents selected by licensee, Hazeltine owned only a few patents of general application to monochrome television receivers and no manufacturer used the inventions of more than three or four patents in any given receiver. Careful consideration was given to an equitable rate of royalty with respect to the individual ones of these patents. In consultation with counsel in Chicago and New York, Hazeltine devised a formula under which it offered to grant a license under any

individual patent selected by the licensee at 50% of the rate applicable to its group of three or four patents then in use; under any two patents selected by the licensee at 80% of the group rate, and under any three or more patents at the group rate. In the opinion of Hazeltine, it was more equitable to allow each licensee to select the patent or patents most important to its own particular designs and to use that selection as a basis of determining the royalty rate rather than to pre-assign specific rates to the patents individually.

17. By 1961, when Zenith commenced the manufacture of color television receivers, the total production of such receivers had increased to significant quantities. Unlike the situation with respect to monochrome television receivers where the important patents had progressively decreased in number, Hazeltine had a large group of patents important in their application to color television receivers, as a result of its research and development investment of many millions of dollars. It was Hazeltine's opinion that the Form 918 license would not yield an equitable return on its investment and it discontinued offering further licenses under this form with respect to color television receivers toward the close of 1961.

18. Commencing in the Fall of 1961, Hazeltine undertook an intensive study and investigation to devise a new license formula applicable to color television receivers which would satisfy several conditions:

(1) It must assure a reasonable royalty return on the company's important color television patents in which it had invested so much money.

(2) It should preferably have a maximum of several maxima, which would meet the almost infinite resistance of certain members of the industry, to a license that had no ceiling on the royalties.

(3) It must permit a licensee to select any one or

more of the Hazeltine patents which it might choose and yet, at the same time, also permit those who preferred a package license to have a package license, and this must be done without any discrimination between the groups.

(4) It must avoid the pitfalls of the misuse doctrine, of which all were aware.

19. The task of meeting all of the foregoing conditions was a formidable one and involved the preparation of numerous drafts which were successively discarded. This work culminated in the letter offer to the television industry dated March 20, 1963, as supplemented by the letter of May 20, 1963. The offer set out in these two letters was made to Zenith.

20. The offer made by the letters of March 20 and May 20, 1963 establish (1) a percentage royalty with respect to each of the nine enumerated Hazeltine patents and one application applicable to color television receivers; (2) a percentage royalty with respect to certain patents applicable to monochrome television receivers; (3) a percentage royalty with respect to any other Hazeltine patents selected by licensee; (4) percentage royalties for various selections from Hazeltine's entire group of present and future patents with respect to monochrome and color receivers; and (5) a schedule of maximum royalties corresponding to the total percentage royalties applicable to any given patent or group of patents selected by the licensee. The schedules of percentage royalties and maximum royalties were such that, in no event, would the royalty for any possible number of individually selected patents exceed that for the entire group.

21. At the time of the offer made to Zenith and to the television industry by the letters of March 20 and May 20, 1963, RCA held an outstanding license from Hazeltine pro-

viding a maximum payment of $200,000 per year which continued in effect until June 30, 1966. Consequently, in order to avoid discrimination between licensees, the March 20—May 20, 1963 offer included the proviso that in no event should the maximum royalty payable by the licensee exceed $200,000 per year prior to June 30, 1966, whether the licensee had or was negotiating for a license under a single patent, a few patents, or the entire group of Hazeltine patents.

22. The offer made by the letters of March 20 and May 20, 1963 was not a final take-it-or-leave-it offer but was the then current offer, which was negotiable. The latter of those two letters was mailed only two days before the Counterclaim was filed herein on May 22, 1963, so that, at that date, no license embodying the terms of that offer had actually been granted to any television receiver manufacturer.

23. Prior to the instant controversy, Zenith had operated under an earlier license form of Hazeltine covering its entire group of patents and carrying a maximum royalty payment of $50,000 per year. That license expired June 30, 1959. Shortly prior thereto, Hazeltine offered to Zenith a license under its entire group of patents or under any individual patent or patents which it might select. The royalty for the entire group of patents was the same as in the prior license, namely 0.95% of the manufacturer's selling price (less specified deductions) of its television receivers with a maximum of $50,000 per year; for any single one of the four Hazeltine patents which it believed Zenith was using, 50% of those rates; for any two of those patents, 80% of those rates, and for any three or more, 100% of those rates. Zenith refused all offers, taking the position that the Hazeltine patents were all invalid or did not cover Zenith's television receivers or both. Some four months later, Hazeltine filed this Action to protect its valuable patent rights from misappropriation by Zenith and to pro-

tect its many licensees from unlicensed competition by Zenith. These negotiations did not consider color television receivers since Zenith was not then manufacturing such receivers.

24. Commencing in the Fall of 1961, there were discussions between Hazeltine and Zenith with respect to a license under the Hazeltine patents directed to color television receivers. A rough draft agreement with respect to such receivers was sent by Hazeltine to Zenith in April of 1962, but it bore at the top of the first page the prominent legend "This is a Tentative Draft for Purposes of Negotiation and is Not to be Construed as an Offer to LICENCEE * * *". Negotiations were shortly thereafter broken off by Zenith and there was no further communication between the parties until the foregoing offering letters of March 20, and May 20, 1963.

25. There was no effort or action by Hazeltine to force or coerce Zenith into accepting a "package license" under Hazeltine's group of patents with respect to either monochrome or color television receivers. Hazeltine did not make any proposal to Zenith that it should accept a license under any Hazeltine patent that it was not using.

26. Hazeltine has not coerced any television receiver manufacturer to accept a license under its entire group of United States patents; it has not refused to grant a license to any such manufacturer under any one or more individual patents selected by the manufacturer; and it has not attached as a condition to the grant of such a license under individual patents, any unreasonable condition or any condition tantamount to a refusal of such a license. H. C.'s Foreign License Practices—Canada

27. Prior to 1943, H. C. unsuccessfully attempted to license Canadian radio manufacturers under its Canadian patents.

28. In 1943, H. C. approach Canadian Radio Patents Limited (CRPL) a company owned soley by a number of Canadian companies, most of which were manufacturers of radio (and later television) receivers. There resulted an agreement dated July 2, 1943, and still in effect at the time of the filing of the Counterclaim herein, under which H. C. granted an exclusive license under its Canadian patents to CRPL for a term of years. The royalties clauses of that agreement are as follows:

> "The Licensor (H. C.) hereby grants to the Licensee (CRPL), for the term of this agreement, the exclusive and divisible license, with the right to license others, to make within the Dominion of Canada the licensed apparatus specified in Section 2 hereinafter, and to sell said apparatus made by Licensee or its sub-licensees to others for the uses specified in Section 2 hereinafter, and for resale for such uses. Said license to manufacture includes the right to make all or any of the separate parts and the right to have all or any of the separate parts made by others, but no license is granted to sell parts separately except as a bona fide repair of used licensed apparatus or replacement of worn out or defective parts of used licensed apparatus. (Art. III, Section 1)
>
> "Licensee (CRPL) or any of its sub-licensees may import into Canada apparatus which it is commercially unsound or impracticable for Licensee or any of its sub-licensees to manufacture, unless it shall reasonably appear that such importation shall constitute grounds or part thereof for requiring the grant of compulsory licenses to others in accordance with the Canadian Patent Act under the patents of Licensor, or grounds or part thereof for forfeiture in accordance with the Canadian Patent Act of Licensor's patents; and Licensee agrees and will require its sub-licensees to agree to manufacture in Canada such proportion of their total licensed apparatus sold hereunder as may from time to time be necessary to satisfy the requirements of the Canadaian Patent Act in order to prevent the granting

of compulsory licenses to others and in order to prevent the forfeiture of Licensor's patents thereunder." (Art. VI)

29. The H. C.-CRPL agreement contains no restriction on the right of CRPL to license radio or television receivers imported into Canada by its licensees but, on the contrary, such importation is *explicitly authorized* except to such an extent as would give rise to grant of compulsory licenses or forfeiture of the licensed patents under the provisions of the Canadian Patent Act, as interpreted from time to time by the Canadian Courts.

30. Neither H. C. nor CRPL has the *power to prohibit* the importation of radio and television receivers into Canada—this can be effected only by the Canadian Government which as not exercised that power.

31. H. C. is not, and at no time was, a member of CRPL nor has it participated in the activities of that concern nor shared in its profits.

32. Zenith contends that the chief purpose of CRPL is to protect the manufacturing members of that concern from competition by American or other foreign companies seeking to export their receivers to Canada, but there is no evidence to support such contention.

33. Zenith contends that CRPL has conducted an organized campaign against importation of radio and television receivers from the United States, but the fragmentary evidence offered by Zenith fails to support such contention.

34. Zenith contends that CRPL has made mass attacks in the form of infringement suits against dealers found to be selling imported American radio and television receivers but there is no evidence to support such contention.

35. Zenith contends that it has been prevented from establishing in Canada a distribution of its radio and television receivers by the action of CRPL in warning each new distributor to stop the importation of Zenith receivers or

face expensive infringement litigation, but the only evidence on this point comprises complaints from 5 dealers throughout Canada over the last 35 years, which is not adequate proof to support this sweeping charge. Moreover, the evidence is that it is the policy of Zenith to indemnify its dealers and distributors against all patent infringement claims and there is no evidence that Zenith's distributors or dealers would not be fully protected by such indemnification. The evidence is further that Zenith has never had occasion to defend under an indemnity any of its dealers or distributors anywhere, including Canada, at least since 1948.

36. The evidence estblishes that if CRPL were to license the importation into Canada of radio and television receivers covered by patents which it owned or controlled, it would subject its patents to the risks of possible compulsory nonexclusive or exclusive licenses by order of the Canadian Commissioner of Patents or even to revocation of the patents.

37. The evidence is that in Zenith's opinion H. C. owns no valid Canadian patent which is infringed by any Zenith radio or television receiver.

38. The evidence is that CRPL has not "made a direct threat either orally or by correspondence, or had any communication with (a Zenith) dealer or prospective dealer with respect to importation of radio receivers into Canada" during the period for which Zenith is claiming damages hereunder (the "damage period") and there is no evidence that the situation is any different with respect to television receivers. The evidence is further to the effect that CRPL has not, since 1958, exerted "pressure in the trade among (Zenith's) dealers, among distributors and among customers".

39. Zenith Radio Corporation of Canada, Limited, a wholly-owned subsidiary and a major distributor of

Zenith's products in Canada, was *never* sued by CRPL for importation of radio or television receivers into Canada.

40. During the damage period, Zenith imported into Canada 57,000 television receivers and 157,000 radio receivers in spite of the fact that Zenith had made no attempt to market radios in Canada since 1958.

41. Zenith's claim for damages arising from the H. C.-CRPL agreement is based entirely on a "feeling" of Mr. Wright, its President, that had the circumstances been other than what they have been, Zenith would have had a share of the Canadian market equal to its share of the domestic market.

42. There is no evidence that Zenith has in fact been damaged, directly or indirectly, by the H. C.-CRPL license agreement or by any actions of H. C. thereunder.

H. C.'s Foreign License Practices—England

43. In 1933, H. C. organized a company in England known as Hazelpat, Ltd., in an unsuccessful attempt to derive income from its British patents.

44. At an early date, prior to any time material here, there was formed in England a series of "Patent Pools", that is, a collection of substantially all patents of importance to radio receivers (and later television receivers) into a group or pool. The Pool was not a legal entity but a contractual association of all owners of patents of value in the field, the Pool being administered by a committee made up of representatives of the patent owners. The Pool granted simple nonexclusive licenses to all British manufacturers, who preferred this arrangement since it required them to negotiate only a single license rather than separate licenses with the various patent owners. These pools were identified by serial numbers, for example A.6, A.7, and A.8, and each ran for a period of years. There is no evidence that these pools or their activities in any way

violated the laws of Great Britain where all of their activities took place.

45. After the failure of the Hazelpat venture, H. C. entered into an agreement with The General Electric Company, Limited of Great Britain (GEC) in 1938, which, by several extensions and modifications, continued in force up to the time of the filing of the Counterclaim herein. Under these agreements, H. C. granted an exclusive license under its British patents to GEC, including the right to place those patents with its own in successive British pools.

46. So far as material here, the contract clauses under which H. C. granted to GEC the exclusive rights described in order to derive income from its British patents were essentially the same in the several agreements, extensions, and modifications. The most recent form of this clause, that relating to the A.7 Pool, reads as follows:

> "1. For the consideration hereinafter mentioned the Corporation (H. C.) hereby grants unto G. E. C. the sole right to utilize all present and future Patents belonging to the Corporation in Great Britain Northern Ireland the Isle of Man the Channel Islands and Eire in relation to Radio Apparatus (as hereinafter defined) to and for the purpose of enabling G. E. C. to secure entry into the A.7 Broadcast Licensing Pool (hereinafter referred to as 'the A.7 Pool') on such terms as G. E. C. may deem proper or otherwise to deal with the said Patents of the Corporation by way of granting sub-licenses thereunder for the purpose of the A.7 Pool * * *."

47. None of the H. C.-GEC agreements in any way, directly or indirectly, restricts trade between the United States and Great Britain, the only affected countries. There is no price-fixing; there is no restriction on importation by GEC from the United States nor any restriction on its right to license others for importation from the United States; and there is no division of markets or fields. In

fact, H. C. is not even in the "market" at all, since it has never made or sold either radio or television receivers and is not even a competitor of GEC. The agreements contain no restrictions whatever as to the terms on which GEC can deal with the British Pool. Each of the agreements is an open and aboveboard, arm's length transaction which H. C. developed as the only practical way in which it could derive income from its British patents.

48. After the 1938 H. C.-GEC agreement, that company did negotiate with successive British radio and television patent pools and did include Hazeltine British patents, along with its own, in such pools and collected from the pools a portion of the royalties collected by them from the British radio and television industry.

49. In the chain of title from H. C. to the British radio (and later television) manufacturers there have been three links:

(a) The link from H. C. to GEC. There have been no restrictions in any of the agreements comprising this link which have prevented the importation of radio or television receivers into Great Britain by anyone, including Zenith.

(b) The link from GEC to the British pools. GEC has been a member of the several British pools by subscribing to the Pool agreements. In the earlier British pools, the agreements *between the pool members themselves* specifically excluded from the rights granted by the members to the pool, the right to license imported apparatus, the members retaining such rights to themselves. However, the most recent British Pool Agreement, known as the A.7, was extended by agreements effective January 1, 1958 and July 1, 1960. By the last extension agreement, the A.7 Pool Agreement was modified so that the pool members, on and after July 1, 1960, no longer withheld from the Pool the right to license imported receivers.

(c) The link from the British Pool to the British radio and television manufacturers. The several British pools have issued nonexclusive licenses to all British radio and television manufacturers, including the pool members themselves. Again, in the earlier forms of these licenses, the right to sell imported radio and television receivers in Great Britain was explicitly withheld from the licensees, including the pool members. However, commencing with licenses effective as of July 1, 1960, this restriction upon the right of the licensees to sell imported radio and television receivers in Great Britain was eliminated.

50. As a consequence of the facts set forth in the preceding Finding No. 49, on and after July 1, 1960, only thirteen months after the commencement of the damage period, there has been no restriction whatever upon the licensees of the British Patent Pool with respect to the importation of radio and television receivers into Great Britain, including the pool members themselves.

51. Neither GEC nor any of the British patent pools has had the *power to prohibit* importation of radio and television receivers into Great Brtain, whether or not patented.

52. Neither GEC nor any of the British pools ever could or ever did place any restriction on the importation of unpatented radio or television receivers into Great Britain. The evidence is that H. C. has not owned any British patents relating to radio receivers since 1955 and, moreover, does not have any British patents applying to current television receivers because of the different standards there. Mr. Wright, President of Zenith, admitted that he had no knowledge of any Hazeltine patent that would prevent importation of Zenith television receivers into Great Britain and that he had had no investigation of the subject made.

53. Whether or not the Hazeltine British patents were included in the British Patent Pool could not have had the

slightest effect on the freedom of Zenith to export radio and television receivers into Great Britain.

54. Zenith's policy of indemnifying its dealers and distributors applies also to Great Britain, thus eliminating their concern of possible infringement of the H. C. British patents.

55. Zenith's claim for damages arising from the H. C.-GEC agreement is based entirely on the testimony of its Vice President, Mr. Kaplan, that Zenith should have had a share of the British radio and television receiver market one-quarter as great as its share of the United States market except for the restrictions on importation arising from the inclusion of the H. C. British patents in the British pool. Mr. Kaplan's testimony on the point reads:

> "A. Well, I would have to admit that the twenty-five per cent was to some extent arbitrary. I mean, what we are being asked to do here is to determine if a horse that died yesterday could win the Kentucky Derby. * * *"

56. There is no evidence that Zenith has in fact been damaged, directly or indirectly, by the H. C.-GEC agreement or by any actions of H. C. thereunder.

57. Zenith contends that the purpose of the British pools has been to protect British manufacturers in the pools from competition from radio and television receivers made in the United States and other countries but there is no evidence to support this contention. The obvious and direct purpose of the pools was to derive income from the valuable patent properties of the pool members. That was H. C.'s sole object.

58. Zenith contends that the policy of the British Pool was to cooperate in the division of territories and to withhold any assistance to any American company to sell radio and television receivers in England under license from the

pool patents but there is no evidence to support this contention.

59. Zenith contends that, as a result of antitrust litigation brought by itself and by the Government, RCA and General Electric were forced to cease their participation in the British patent pools but there is no evidence to support this contention or its relevance.

60. Zenith contends that H. C. has become an even more important factor in the British Patent Pool because of its color television patents but there is no evidence to support this contention since there is as yet no commercial color television in Great Britain.

61. Zenith contends that it has made every effort to export radio and television receivers to distributors and dealers in the English market but has been thwarted by threats of the British Pool against such dealers and distributors, but there is no evidence to support that contention. There is no evidence that Zenith made any effort to market radio or television receivers in England and its President admitted that he knew of no Zenith dealer or distributor in England that had been "threatened or harassed" or sued by the British Pool.

62. Zenith contends that since its settlement of antitrust litigation with RCA, General Electric, and Western Electric in 1957, it has been able for the first time to export and sell its radio receivers in the English market. However, during the four years beginning June 1, 1959, *after* Zenith acquired rights under the British patents of those concerns, it sold only 6,073 radio receivers in England.

63. Zenith contends that the British Pool has asserted H. C. British patents against it and has constrained it from entering the British television market, but the evidence is that H. C. has no patents in England applicable to British television receivers because of the different television broadcasting standards there.

64. Zenith contends that H. C., by virtue of its agreement with GEC, has been contractually unable to grant it a license to manufacture in the United States for export to, and sale in, England under H. C.'s British patents, but there is no evidence that Zenith ever requested a license under such patents from GEC, which is able to grant such a license.

65. Zenith has failed to establish the fact of any damage arising out of the H. C.-GEC agreement.

H. C.'s Foreign Licensing Practices—Australia.

66. In Australia, in order to derive income from the Hazeltine patents there, H. C. joined with a local concern, Electronics Industries Limited, to form Neutrodyne Proprietary Limited (Neutrodyne) and entered into an agreement with that concern granting exclusive rights under Australian patents originating from Hazeltine inventions. That agreement was still in force at the time the Counterclaim was filed herein. There is in the H. C.-Neutrodyne agreement nothing whatever, directly or indirectly, restricting the right of Neutrodyne to grant licenses with respect to the importation of radio (and later television) receivers into Australia.

67. In 1933, there was formed an Australian radio patent pool, known as "Australian Radio Technical Service And Patents Company Limited" (ARTS) by Amalgamated Wireless (Australasia) Limited and Standard Telephones and Cables (Australasia) Limited. There is nothing in that agreement restricting the rights of ARTS to license radio and television receivers imported into Australia.

68. The first practical implementation of the H. C.-Neutrodyne Agreement (DX-180) for the exploitation of the Hazeltine patents in Australia was an Agreement dated April 12, 1934, between Neutrodyne and ARTS. The granting clause in that Agreement is paragraph 5, reading:

"In consideration of the premises and of the payment to Neutrodyne of the royalties hereinafter mentioned in manner hereinafter provided Neutrodyne except in so far as it may be unable to do so by reason of the terms conditions agreements and covenants expressed and contained in existing agreements made between Neutrodyne and the other parties whose names and addresses are set forth in the Third Schedule hereto hereby grants to A.R.T.S. for the term herein mentioned but subject as hereinafter provided the otherwise exclusive right and authority to grant sub-licenses to third parties (hereinafter called 'Licensees') to use, manufacture and sell in the Commonwealth of Australia and/or Dominion of New Zealand broadcast receivers as herein defined the subject of the present and future Letters Patent owned or controlled by it conditionally on such sub-licenses being non-assignable by A.R.T.S. or by its Licensees."

There are no restrictions in this agreement on the licensing of imported receivers into Australia. That basic Neutrodyne-ARTS Agreement was followed by superseding agreements and extensions, including the same essential granting provisions, so far as material here.

69. The Neutrodyne-ARTS Agreement referred to in preceding Finding No. 68 was followed by superseding agreements and extensions including the same essential granting provisions, so far as material here.

70. The early license forms issued by ARTS to the Australian radio industry (there was no television at that time) followed rather closely the forms used by the British pools and contained a restriction against importation without the consent of ARTS. However, in the later license forms, starting with License No. 5, having an effective date of January 1, 1951, this restriction on importation was generally eliminated, although it was continued in the licenses to local assemblers.

71. Consequently, from the adoption of ARTS License

No. 5, effective January 1, 1951, there has been no restriction as to the licensing of imported radio and television receivers in the complete chain of title from H. C. to Neutrodyne-ARTS to the Australian manufacturer.

72. The real impediment to the importation of radio and television receivers into Australia by Zenith is clearly spelled out in one of Zenith's own exhibits, a letter from the Australian General Electric Company to the International General Electric Company in New York which included the statement:

> "* * * The 'Scullin' (Labour) Government in the early days of the depression in 1930 voted a total prohibition of the importation of Radio Receivers, and although this embargo was removed by the next Government, the rate of duty was then set at such a figure as to amount almost to prohibition. As an example, we would instance a friend of the Company who purchased a receiver in the United States for £9, and had to pay £37 duty on entering Australia. * * *"

73. As a consequence of the circumstances set forth in preceding Finding No. 72, Zenith exported to Australia during the four-year damage period only 14 television receivers and 48 radio receivers.

74. Apparently as a consequence of the prohibitive Australian tariffs on radio and television receivers, Zenith had never made any attempt to build up the radio business in Australia nor had it ever asked ARTS for a license to import either radio or television receivers into Australia.

75. There is no evidence that Zenith has in fact been damaged, directly or indirectly, by the H. C.-Neutrodyne-ARTS agreement or by any actions of H. C. thereunder.

76. Zenith contends that the dominant electronics company in Australia is and has been Amalgamated Wireless (A'asia) Limited but there is no evidence to support such contention.

77. Zenith contends that the "cartel arrangements assigned Australia exclusively to Amalgamated Wireless and the patents and inventions of all of the conspirators were funneled into" ARTS, but there is no evidence to support these contentions.

78. Zenith contends that the standard ARTS Pool license imposes restrictions effecting a division of territories in the over-all arrangements, but there is no evidence to support this contention.

79. Zenith contends that the license issued by ARTS requires the licensee to agree not to export or import or sell or offer for sale in Australia any radio or television receiver not manufactured in Australia, but this has not been true at lease since January 1, 1951.

80. Zenith contends that the acceptance of a Hazeltine license under its United States patents precludes it from attacking counterpart foreign patents of H. C. in the respective foreign countries, but the evidence is that the acceptance of a license under the Hazeltine United States patents does not prevent the licensee from attacking H. C.'s foreign counterpart patents asserted against exported radio and television receivers.

81. Zenith contends that the purpose of ARTS has been to protect Australian manufacturers in the pool from competition from radio and television receivers made in the United States and other countries but there is no evidence to support this contention. The obvious and direct purpose of ARTS was to derive income from the valuable patent properties of the pool members. That was H. C.'s sole object.

82. Neither Hazeltine nor H. C. has participated in any general plan or conspiracy the purpose and effect of which have been to restrain the export of radio and television receivers from the United States.

Zenith's Claimed Damages

83. Zenith has failed to carry its burden of proof of the fact of damage arising from any act, agreement, or arrangement of Hazeltine or H. C.

84. Zenith's computations of the amount of its asserted damages is based upon speculations, assumptions, and errors of computation as follows:

(a) Uncertainty in the computation of its share of the United States market for radio and television receivers.

(b) The "feeling" of its President that Zenith should have the same share of the Canadian radio and television receiver market as its share of the United States market.

(c) The "to some extent arbitrary" guess of its Vice President that it should have a share of the British radio and television receiver market one-quarter as great as its share of the United States market.

(d) The guess of its Vice President that it should have 2% as great a share of the Australian radio and television receiver market as its share of the United States market.

(e) Errors in computations of Zenith's accounts including:

(1) The erroneous assumption that an increase in Zenith's sales of exported receivers would come off the same production lines as United States receivers.

(2) The erroneous inclusion in its profit computations of certain costs as "fixed", that is, not increasing with increased volume of production, which Zenith's accountant admitted on cross-examination were actually variable costs, that is, varying with volume of production.

(f) The assumption of Zenith's accountant that increased export sales would yield an increased percentage profit, in spite of the fact that an increase in Zenith's domestic sales of more than 50% from 1958 to 1962 did not realize any increase in percentage profit.

85. Zenith's computations of the amount of its asserted damages are so wildly speculative and so permeated with error that they cannot support a claim for damages.

86. There is no evidence of any "international conspiracy" having as its purpose or effect the restriction of interstate or foreign commerce in the field of radio and television receivers.

87. There is no evidence linking Hazeltine or H. C. with members of the alleged "international conspiracy".

88. There is no evidence linking CRPL, GEC, and ARTS, or any of them, in any contract, arrangement, plan, or conspiracy to restrict trade in the field of radio and television receivers among their respective countries or with the United States.

Conclusions of Law.

1. Hazeltine's practices in granting licenses under its United States patents in the radio and television receiver field have not constituted a misuse of its patents and has not rendered them unenforceable.

2. Hazeltine has attached no conditions to its various license offers under individual ones of its United States patents tantamount to a refusal to grant licenses under its patents individually.

3. Hazeltine has not followed the practice of mandatory package licensing.

4. The method set forth in the current Hazeltine form of license agreement for computing royalties as a percentage of the manufacturer's selling price on all appa-

ratus of the type licensed is an accepted method of royalty computation and is not illegal.

5. Under the Canadian Patent Act of 1935, the owner of a Canadian patent who licenses imported articles covered by the patent incurs the following risks:

(a) The grant of a *nonexclusive* license to any applicant by the Canadian Commissioner of Patents at royalty rates set by him.

(b) The grant of an *exclusive* license to any applicant by the Canadian Commissioner of Patents at royalty rates set by him.

(c) Revocation of the patent by the Canadian Commissioner of Patents.

6. The risks set forth in Conclusion No. 5 can arise whenever the Canadian Commissioner of Patents finds that certain "abuses" of the patent have occurred; the Canadian Courts have found such "abuses" to have occurred if the Canadian demand for the patented article is not supplied substantially entirely by Canadian manufacturers.

7. The International Convention for the Protection of Industrial Property, as revised at London 1934, to which Canada has adhered, does not restrict the right of the Canadian Commissioner of Patents to revoke Canadian patents for "abuses" such as licensing large-scale importation; Canada has not adhered to the Lisbon revision of that Convention in 1958 which modified the authority of the Canadian Commissioner of Patents to issue an order of revocation.

8. A simple, nonrestrictive license agreement between a United States nonmanufacturing concern, owning patents in a foreign country, with a noncompeting concern in such country, having as its principal purpose and result deriving royalty income from such foreign patents, does not constitute a contract, plan, arrangement, or conspiracy in restraint of trade even though the operations of the foreign

concern in such country, lawful there, would be illegal if performed in the United States.

9. The bilateral agreement between H.C. and CRPL currently in force is a lawful agreement, the primary purpose and effect of which is to enable H.C. to obtain a fair royalty return under its Canadian patents.

10. The bilateral agreement between H.C. and CRPL currently in force does not constitute a contract, arrangement, plan, or conspiracy in restraint of trade between the United States and Canada.

11. The bilateral agreement between H.C. and GEC currently in force is a lawful agreement the primary purpose and effect of which is to enable H.C. to obtain a fair royalty return under its British patents.

12. The bilateral agreement between H.C. and GEC currently in force does not constitute a contract, arrangement, plan, or conspiracy in restraint of trade between the United States and Great Britain.

13. The bilateral agreement between H.C. and Neutrodyne-ARTS currently in force is a lawful agreement, the primary purpose and effect of which is to enable H.C. to obtain a fair royalty return under its Australian patents.

14. The bilateral agreement between H.C. and Neutrodyne-ARTS currently in force does not constitute a contract, arrangement, plan, or conspiracy in restraint of trade between the United States and Australia.

15. Any restraint on the export trade between the United States on the one hand and Canada, Great Britain, and Australia on the other hand, indirectly resulting from the H.C. license agreements to CRPL, GEC, and Neutrodyne-ARTS, respectively, are reasonable and ancillary restraints and do not bring such license agreements within the purview of the United States Antitrust Laws.

16. The bilateral nonrestrictive license agreements between H.C. and CRPL, GEC, and Neutrodyne-ARTS have not resulted in any legal injury to Zenith.

17. Zenith's estimate of the amount of damages it alleges to have suffered by virtue of the bilateral nonrestrictive agreements between H.C. and CRPL, GEC, and Neutrodyne-ARTS is too speculative, uncertain, and unreliable to form a basis of an award of money damages to it.

18. Zenith's affirmative defense to Hazeltine's claim for infringement of the '648 Loughren patent in suit that Hazeltine has misused its United States patents, thereby rendering them unenforceable, is dismissed.

19. Zenith's Counterclaim is dismissed.

Respectfully submitted,

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